

**County Council of the Parts of Lindsey,
Lincolnshire.**

ANNUAL REPORT

UPON THE

**HEALTH AND SANITARY CONDITION
OF THE COUNTY,**

BY

R. ASHLEIGH GLEGG, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH.

1914.

Grimsby :

GRIMSBY NEWS CO. LTD., PRINTERS.

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SANITARY DISTRICTS.

URBAN.

Name of District.	Medical Officer of Health.
ALFORD	G. A. BOSSON, M.B., M.R.C.S.
BARTON-ON-HUMBER	W. G. LOVERIDGE, L.R.C.P., L.R.C.S., &c.
BRIGG	} J. M. MITCHELL, M.D., D.P.H., &c.
BROUGHTON	
BRUMBY & FRODINGHAM...	J. CLARKE, L.R.C.P., L.R.C.S.I. & L.M.
CLEETHORPES	O. M. BOOTH-MILNER, M.R.C.S., L.R.C.P.
CROWLE	W. H. M. ALEXANDER, M.B., C.M.
GAINSBOROUGH	J. A. HACKETT, M.B., Ch.B.
HORNCastle	A. BOULTON, M.R.C.S., L.R.C.P., D.P.H.
LOUTH	W. J. BEST, M.R.C.S., D.P.H.
MABLETHORPE	J. IREDALE, L.R.C.P., L.R.C.S.
MARKET RASEN	D. F. TORRENS, B.A., M.B., D.P.H.
ROXBY-CUM-RISBY	E. J. TONGUE, M.R.C.S., L.R.C.P.
SCUNTHORPE	M. R. J. BEHRENDT, L.R.C.P., L.R.C.S.
SKEGNESS	STANLEY WALLACE, M.R.C.S., L.R.C.P.
WINTERTON	W. I. T. BAKER, L.R.C.P., L.R.C.S.
WOODHALL SPA	A. BOULTON, M.R.C.S., L.R.C.P., D.P.H.

RURAL.

GLANFORD BRIGG	J. M. MITCHELL, M.D., D.P.H.
CAISTOR	A. FRASER, M.B., C.M.
GAINSBOROUGH	H. B. WILLOUGHBY SMITH, M.B., F.R.C.S., L.R.C.P.
GRIMSBY	G. O. MCKANE, L.R.C.P., L.F.P.S.
HORNCastle	ARTHUR BOULTON, M.R.C.S., L.R.C.P., D.P.H.
ISLE OF AXHOLME	ARTHUR F. MESSITER, M.R.C.S. L.R.C.P.
LOUTH	CHARLES J. MYERS, M.R.C.S., L.R.C.P.
SIBSEY	A. TUXFORD, M.D.
SPILSBY	FRANCIS J. WALKER, M.D.
WELTON	C. HARRISON, M.D., D.P.H.

To the Chairman and Members of the Public Health and Housing Committee of the Lindsey County Council.

GENTLEMEN,

My Sixth Annual Report on the health and Sanitary condition of the Administrative County in 1914 is presented to you under very different circumstances from previous ones. The country is at war and the efforts of all have of necessity to be directed to the one object of securing a speedy victory to our arms. As a consequence public expenditure of money on other objects has been discouraged, and, therefore, projects for the improvement of public health administration, the adoption of which I should have urged under other circumstances, are either omitted from this Report or are mentioned so that they may receive consideration when the strain of the war is over. While it is not possible for any of the District Councils to embark on schemes for improvements in sanitation involving a large expenditure, yet it is important that every effort should be made to safeguard the health of the people and to diminish preventable mortality. Much may be done simply by keeping the present machinery of public health administration at its highest possible efficiency. More especially I would urge that particular attention should be paid in all the districts to the regular removal of refuse. In places where there is no public scavenging system the attention of householders should be directed to the importance of burning all combustible refuse and to the danger to health of allowing garbage and rubbish to accumulate near to dwellings.

Troops have been quartered in different parts of the County since last August and their presence has added much to the duties of the District Medical Officers of Health and Inspectors of Nuisances. On 31st August, 1914, Dr. Newsholme, the Medical Officer of the Local Government Board, sent a circular letter to all Medical Officers of Health, advocating close co-operation between the civil and military sanitary services. The Medical Officers of Health were invited to place themselves in communication with the local Military Medical Authorities, offering any services which might be useful. It was pointed out that District Medical Officers of Health would be able to give valuable information to military sanitary officers in the following, among other directions :—

1. In advising as to all local water supplies and as to their protection from contamination ;
2. In helping to secure satisfactory disposal of garbage and other refuse ;
3. In securing satisfactory drainage or conservancy arrangements ;
4. In the control of infectious disease, and in arranging for hospital provision for the ordinary infectious diseases and for convalescent cases of enteric fever and for the carrying out of disinfection.

The Military Authorities were instructed by the War Office to communicate with the Medical Officer of Health in Urban Districts, and with the County Medical Officer in Rural Districts before arranging for the billeting of troops or the erection of camps. The civil sanitary officers have sought out the Military Authorities and proffered their services, and in many instances have been able to give them much assistance. The services of the County Laboratory have been placed at the disposal of all Medical Officers in charge of troops. Until recently the Military Authorities did not act on the War Office instruction as to communicating with the Medical Officers of Health before arranging for billeting or camps. When billets and camps have been visited by the Civil Sanitary Officers many sanitary defects likely to be injurious to troops have been noted and remedied as a result of our representations. It would be much better if a practice were made by the Military Authorities of consulting with the local Medical Officers of Health before billets are selected and sites of camps decided upon.

The lack of proper isolation hospital accommodation in the County has been much felt by the Military Medical Officers. The County Council have under consideration the question of providing adequate isolation hospitals for the whole County.

The year 1914 has seen the initiation of the dispensary organisation for the control of tuberculosis. In nearly all the market towns centres have been established to which persons suffering from tuberculosis come or are sent by their medical attendants for treatment and instruction. The Dispensary Nurses follow up the doctor's instructions by regular visits to the homes and the patients are shown practically

what to do to assist their cure and to prevent the spread of infection. The Tuberculosis Officers visit the homes of all cases notified to the Medical Officers of Health to see whether any insanitary conditions exist which are prejudicial to the patients' recovery and at the same time they examine as many as possible of those who are living in the same houses to ascertain whether any are suffering from the disease in the early stage when treatment is most effectual.

The Inspector of Midwives draws attention to the need for keeping the practising midwives in the County up-to-date in their methods, and urges that arrangements should be made for giving them practical instruction. This matter might well receive favourable consideration at the present time when it is particularly important that steps should be taken to reduce infant mortality.

Abstracts of the Reports of the District Medical Officers of Health are given at the end of this Report. These give details in regard to the sanitation of each district. The District Medical Officers have co-operated very cordially with the Officers of the County Council in all matters relating to the public health.

I am, Gentlemen,

Your obedient Servant,

R. ASHLEIGH GLEGG,

County Medical Officer of Health.

*Health Department of the Lindsey County Council,
286, High Street, Lincoln,
28th June, 1915.*

VITAL STATISTICS FOR THE YEAR 1914.

Group.	Population	Births.		Deaths.		Infant Deaths.		Zymotic Deaths.		Phthisis Deaths.		Deaths from other Tuberculous Diseases.		Deaths from Respiratory Diseases.		Deaths from Cancer.	
		No.	* Rate.	No.	* Rate.	No.	† Rate.	No.	* Rate.	No.	* Rate.	No.	* Rate.	No.	* Rate.	No.	* Rate.
Borough and Urban Districts	103,634	2471	23'84	1313	12'67	237	95'91	114	1'10	93	'89	26	'25	87	'83	120	1'15
Rural Districts...	145,676	3224	22'13	1820	12'49	269	83'43	113	'77	105	'72	27	'18	112	'77	173	1'18
Whole County...	249,310	5695	22'84	3133	12'56	506	88'85	227	'91	198	'79	53	'21	199	'79	293	1'17

* Rates calculated per 1,000 of the estimated population.

† Rates calculated per 1,000 of the registered births.

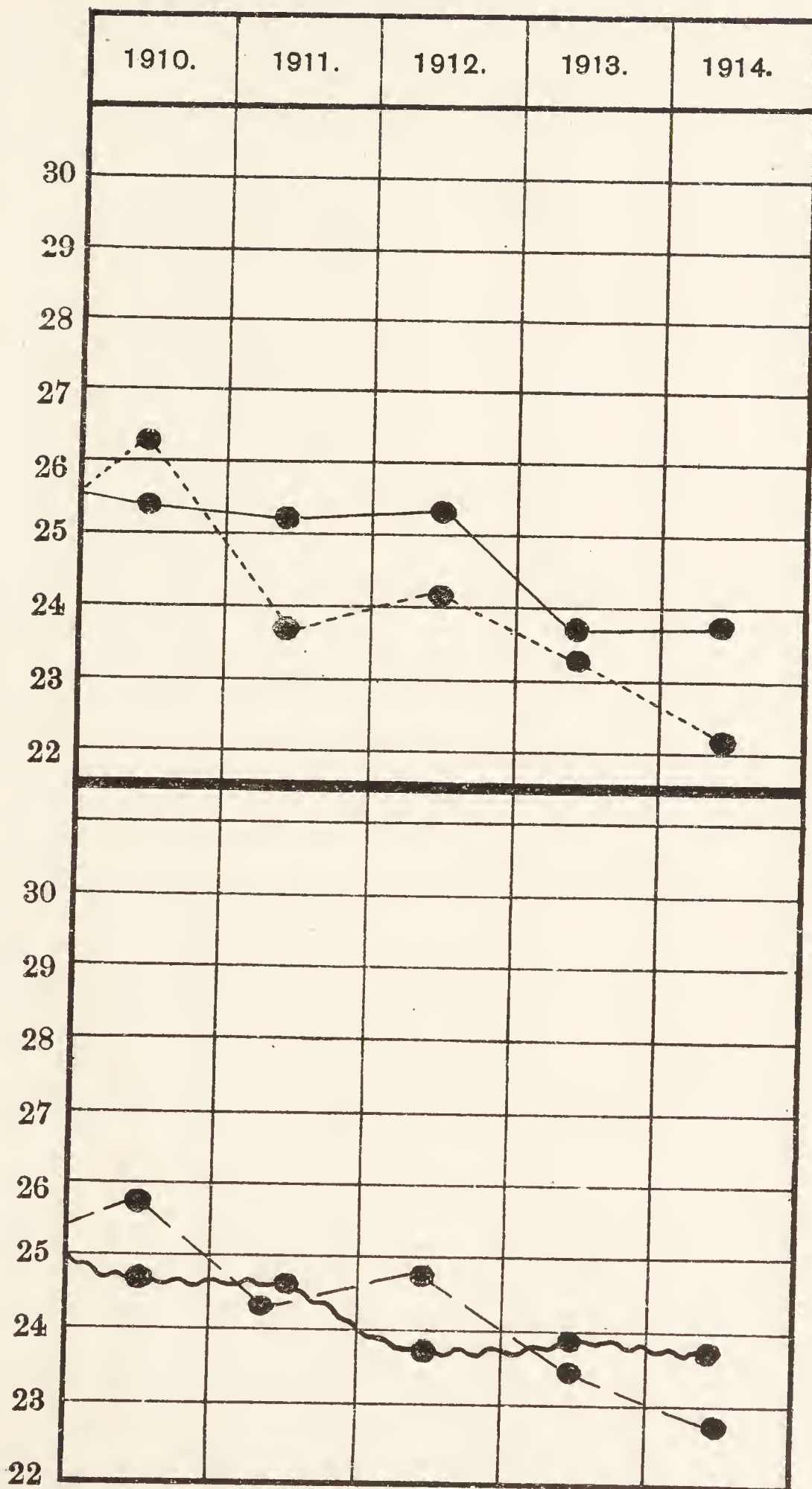
VITAL STATISTICS, L.G.B. TABLE I.

DISTRICT.	Area in statute acres (land and inland water.)	Inhabited houses at census 1911.	Persons per House at census 1911.	Population estimated to the middle of 1914.	Births.		Deaths under 1 year of age.		Total Deaths.		Transferable Deaths.		Net Deaths at all Ages belonging to the District.	Net Death Rate.	Rate corrected for age & sex.	
					Number.	* Rate.	Num-ber.	Rate per 1,000 Births Registered.	Number.	* Rate.	Deaths of residents registered in the District.	Deaths of Residents not registered in the District.				
URBAN.																
Alford	1,138	658	3.63	2,365	50	21.14	6	120.0	54	22.83	...	4	58	24.52	18.40	
Barton-on-Humber	6,343	1,533	4.35	7,021	162	23.07	18	111.11	88	12.53	...	9	97	13.81	12.11	
Brigg	462	752	4.44	3,414	69	20.21	6	86.95	54	15.81	21	3	36	10.54	9.01	
Broughton	7,073	322	4.28	1,409	40	28.38	3	75.0	15	10.64	2	1	14	9.93	8.43	
Brumby & Frodingham	4,043	584	5.02	3,159	128	40.51	6	46.87	45	14.24	6	3	42	13.29	13.53	
Cleethorpes-with-Thruscoe	1,185	4,917	4.35	24,265	612	25.22	57	91.50	247	10.18	11	35	271	11.17	11.63	
Crowle	6,926	705	4.04	2,882	75	26.12	...	...	27	9.37	...	4	31	10.75	8.24	
Gainsborough	2,406	4,516	4.55	21,605	545	25.22	68	124.77	282	13.05	16	16	282	13.05	13.48	
Horncastle	1,421	1,010	3.86	3,852	66	17.13	5	75.75	65	16.87	10	3	58	15.05	11.14	
Louth (Borough)	2,749	2,626	3.76	10,005	168	16.79	11	65.47	156	15.59	15	10	151	15.09	11.55	
Mablethorpe	3,168	320	3.85	1,335	10	7.49	1	100.0	20	14.98	1	...	19	14.23	11.83	
Market Rasen	976	596	3.85	2,333	45	19.29	4	80.80	35	15.0	2	3	36	15.43	12.25	
Roxby-cum-Risby	4,908	82	4.60	375	17	45.3	3	176.47	9	24.0	1	1	9	24.0	23.35	
Scunthorpe	1,032	2,015	5.04	11,359	363	31.9	40	110.7	127	11.18	1	7	133	11.7	12.40	
Skegness	1,922	802	4.70	5,151	61	11.84	2	32.78	47	9.12	9	2	40	7.76	7.87	
Winterton	3,818	365	3.89	1,448	40	27.62	5	125.0	21	14.50	1	1	21	14.50	10.90	
Woodhall Spa	1,874	332	4.47	1,656	20	12.07	2	100.0	14	8.45	...	1	15	9.06	8.33	
TOTALS	51,444	22,136	4.34	103,634	2471	23.84	237	95.91	1306	12.60	96	103	1313	12.67	11.79	
RURAL.																
Glanford Brigg	124,003	6,862	4.35	32,007	898	28.05	82	91.31	348	10.87	5	35	378	11.81	10.25	
Caistor	120,108	3,102	4.23	13,097	252	19.24	14	55.5	163	12.44	11	10	162	12.37	9.94	
Gainsborough	94,706	3,570	4.12	14,812	289	19.51	20	69.20	183	12.35	1	19	201	13.57	11.0	
Grimsby	43,201	2,086	5.09	12,436	284	22.83	27	95.07	122	9.81	14	27	135	10.85	10.06	
Horncastle	114,153	3,173	4.12	12,975	280	21.57	27	96.43	161	12.41	...	24	185	14.26	11.58	
Isle of Axholme	28,070	1,651	4.12	6,860	127	18.51	15	118.11	87	12.68	2	10	95	13.84	10.98	
Louth	154,627	4,529	4.03	18,209	354	19.44	35	98.87	232	12.74	4	18	246	13.51	10.80	
Sibsey	21,565	691	4.32	3,021	84	27.80	12	142.86	46	15.22	1	6	51	16.88	13.49	
Spilsby	128,211	5,228	4.01	21,188	427	20.15	27	62.23	238	11.23	9	17	246	11.61	8.96	
Welton	83,712	2,661	4.17	11,071	229	20.68	10	43.67	113	10.20	...	8	121	10.92	8.99	
TOTALS	912,356	33,553	4.22	145,676	3224	22.13	269	83.43	1693	11.62	47	174	1820	12.49	10.26	
TOTALS FOR COUNTY	963,800	55,689	4.27	249,310	5695	22.84	506	88.85	2999	12.02	143	277	3133	12.56	10.83	

BIRTH RATES FOR 5 YEARS.

Urban Districts —————

Rural Districts - - - - -



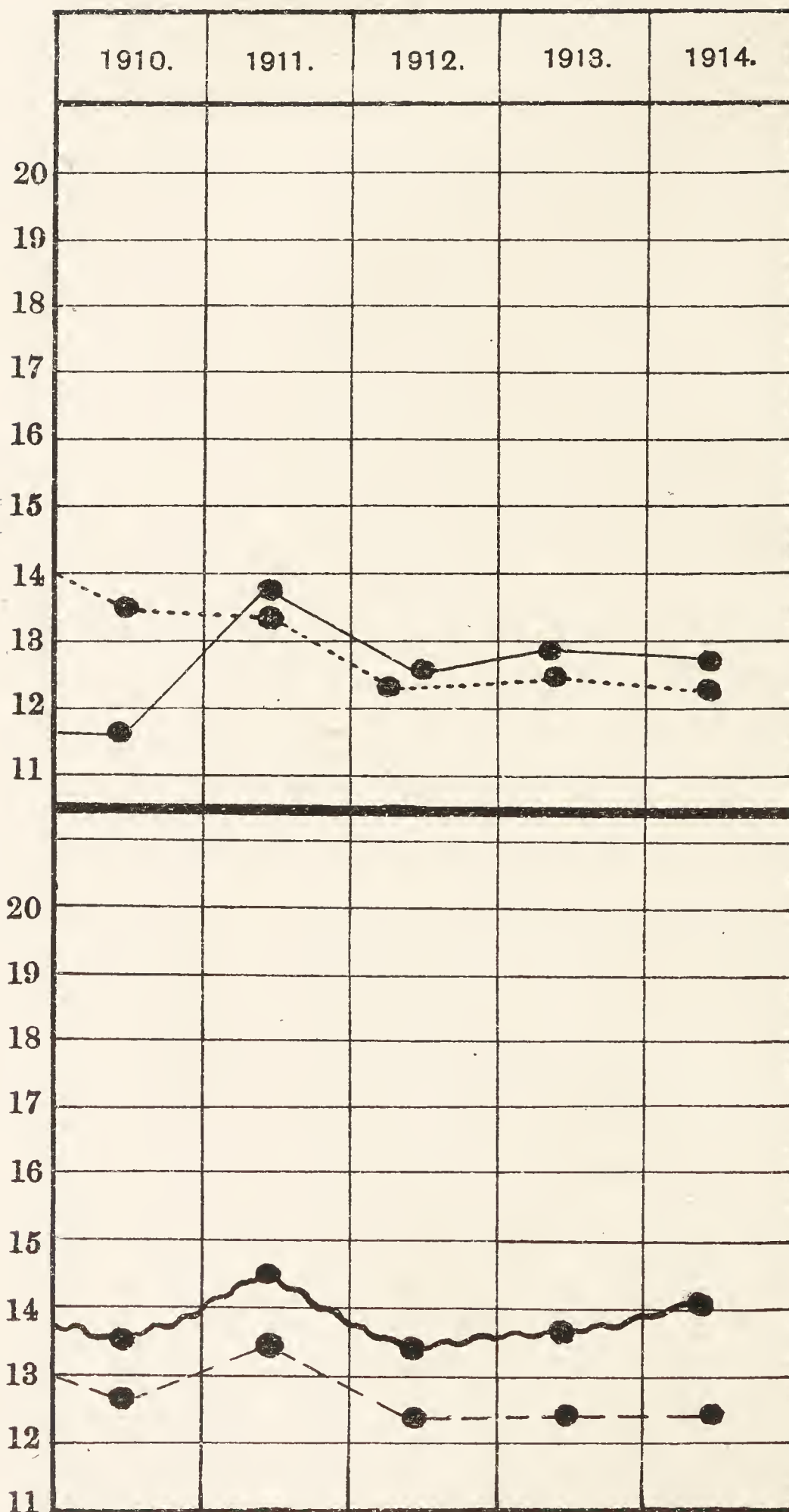
County of Lindsey - - - - -

England and Wales ~~~~~

DEATH RATES FOR 5 YEARS.

Urban Districts —————

Rural Districts - - - - -



County of Lindsey - - - - -

England and Wales ~~~~~

1914.
L.G.B. TABLES I. AND III.
CAUSES OF DEATH IN EACH DISTRICT AT ALL AGES.

DISTRICT.	Popula- tion esti- mated by Medical Officer of Health.	Births.	Deaths.	Enteric Fever.	Measles.	Scarlet Fever.	Whooping-Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Phthisis. (Pulmonary Tuberculosis)	Tuberculous Meningitis.	Other Tuberculous Diseases.	Rheumatic Fever.	Cancer. Malignant Disease.	Meningitis.	Bronchitis.	Pneumonia. (All Forms.)	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhlitis.	Alcoholism.	Cirrhosis of Liver.	Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents & Diseases of Pregnancy & Parturition	Conceitral Debility and Malform- ation including Premature Birth.	Violent Deaths (excluding Suicide.)	Suicides.	Heart Diseases.	Other Defined Diseases.	Diseases ill-defined or unknown.	Total.	
URBAN.																																		
Alford	2365	50	58	1	2	...	6	1	5	...	7	6	...	1	1	1	3	1	1	4	18	...	58
Barton-on-Humber ...	7021	162	97	...	9	3	4	...	...	...	8	3	1	...	5	...	8	8	1	1	...	...	...	2	...	...	8	7	...	6	22	1	97
Brigg	3414	69	36	1	1	2	1	1	1	2	...	1	1	1	1	2	...	4	17	...	36
Broughton	1409	40	14	1	1	1	2	...	1	...	1	1	1	...	1	4	...	14
Brumby and Frodingham	3159	128	42	...	1	1	...	...	...	...	2	...	...	...	2	...	1	2	3	1	...	...	...	3	...	...	4	6	...	11	4	1	42
Cleethorpes	24265	612	271	2	1	...	4	3	3	...	18	1	5	...	33	7	19	20	2	10	1	2	2	13	...	...	28	6	2	28	61	...	271
Crowle	2882	75	31	...	...	...	...	1	...	...	1	...	...	...	2	1	2	6	...	...	...	...	1	...	...	...	...	1	...	2	14	...	31
Gainsborough	21605	545	282	1	...	2	12	1	3	...	24	1	3	1	24	1	15	24	2	19	1	...	...	5	...	5	28	8	...	27	75	...	282
Horncastle	3852	66	58	...	...	...	...	...	1	...	5	...	...	1	8	2	4	5	1	1	...	1	...	...	...	...	3	...	...	1	25	...	58
Louth (Borough) ...	10005	168	151	2	...	...	1	...	1	...	9	1	1	1	12	...	11	8	...	6	...	1	3	5	...	...	2	3	2	22	59	1	151
Mablethorpe	1335	10	19	...	...	...	...	...	1	...	4	1	...	...	2	...	...	...	...	...	...	...	...	4	...	...	...	2	...	3	2	...	19
Market Rasen	2333	45	36	2	...	...	...	1	...	...	3	1	1	...	5	1	...	2	...	1	...	...	1	...	...	...	1	1	...	4	12	...	36
Roxby-cum-Risby ...	375	17	9	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	5	...	9
Scunthorpe	11359	363	133	...	2	...	4	...	2	...	8	...	2	...	9	...	6	7	1	10	1	...	...	...	...	...	18	5	1	11	44	2	133
Skegness	5151	61	40	...	...	...	...	...	2	...	3	...	1	...	6	...	1	4	...	...	1	...	...	3	...	...	3	2	...	3	11	...	40
Winterton	1448	40	21	...	...	...	...	...	...	...	...	1	...	...	3	...	...	1	...	...	...	...	...	...	...	...	1	1	2	...	12	...	21
Woodhall Spa	1656	20	15	...	...	...	...	...	...	...	...	...	...	...	3	...	1	...	...	...	...	...	...	...	...	...	1	...	...	3	7	...	15
Total	103634	2471	1313	9	13	6	26	7	15	...	93	12	14	3	120	14	77	97	10	53	6	5	7	37	...	5	103	46	8	130	392	5	1313	
RURAL.																																		
Glanford Brigg	32007	898	378	...	5	...	11	6	7	1	25	7	5	1	29	7	21	23	4	14	1	2	1	11	...	1	28	8	...	30	125	5	378	
Caistor	13097	252	162	1	...	...	...	...	2	...	10	1	1	1	18	4	7	5	4	5	...	...	2	9	...	...	4	8	2	15	62	1	162
Gainsborough	14812	289	201	...	1	...	1	3	11	1	12	1	2	...	26	1	9	16	1	3	1	...	...	5	...	2	6	12	...	20	67	...	201
Grimsby	12436	284	135	...	...	...	3	6	2	...	4	...	...	...	9	1	7	8	...	7	4	1	...	5	...	...	9	9	2	19	39	...	135
Horncastle	12975	280	185	...	...	1	4	1	6	...	8	1	2	...	18	4	11	11	3	6	...	...	...	3	...	3	10	5	1	15	70	2	185
Isle of Axholme	6860	127	95	...	...	...	...	1	...	1	5	...	...	...	9	...	8	3	2	5	...	2	1	2	...	...	3	4	...	9	40	...	95
Louth	18209	354	246	2	1	...	3	3	6	1	15	...	2	...	29	3	13	10	...	7	...	...	2	4	2	...	16	3	2	34	88	...	246
Sibsey... ..	3021	84	51	...	1	...	1	...	1	...	3	1	...	...	2	...	2	...	1	1	...	1	...	1	...	...	11	4	...	6	15	...	51
Spilsby	21188	427	246	1	...	1	3	...	6	1	17	1	1	...	27	3	12	9	..	...	1	1	3	3	...	3	16	5	2	26	102	3	246
Welton	11071	229	121	...	...	...	...	...	4	...	6	...	2	1	6	...	7	3	...	5	...	...	1	3	...	2	3	1	...	13	62	2	121
Total	145676	3224	1820	4	8	2	26	20	45	5	105	12	15	3	173	23	97	88	15	53	7	7	10	46	2	11	106	59	9	187	670	12	1820	
Administrative County ...	249310	5695	3133	13	21	8	52	27	60	5	198	24	29	6	293	37	174	185	25	106	13	12	17	83	2	16	209	105	17	317	1062	17	3133	

VITAL STATISTICS OF THE ADMINISTRATIVE COUNTY.

AREA.

The area of the administrative county of the Parts of Lindsey, excluding the County Boroughs of Grimsby and Lincoln, is 963,800 acres, inclusive of land and inland water.

POPULATION.

The county is very sparsely populated, there being at the Census, 1911, only 0.24 persons per acre. The chief centres of population are Cleethorpes, Gainsborough, and the Ironstone District round Scunthorpe.

The total population at Midsummer, 1914, as estimated by the method described in the Registrar General's annual report for 1911, was 249,310. At the Census in 1911 it was 237,843.

Estimates of the population of each Urban and Rural District have been made by the same method and their vital statistics are based on these estimates.

BIRTH RATE.

The births registered in the County during 1914 numbered 5,688. The Registrar General transferred 18 of these births to other districts and included 25 births registered elsewhere. The nett number of births was therefore 5,695, giving a **birth rate of 22.84 per 1,000** of the population, compared with 5,791, and a rate of 24.73 per 1,000 in 1913.

In the Urban Districts there were registered 2,471 births, giving a birth rate of 23.84, and in the Rural Districts 3,224 with a rate of 22.13 per 1,000 of the population.

The following table shows the birth rates for the County and for its Urban and Rural Districts for the past six years compared with those for England and Wales.

	1909	1910	1911	1912	1913	1914
England and Wales	25.6	24.8	24.4	23.8	23.9	23.8
Administrative C'nty	25.0	25.8	24.3	24.7	23.5	22.84
Urban Districts ...	25.9	25.4	25.1	25.3	23.8	23.84
Rural Districts ...	24.4	26.2	23.7	24.1	23.3	22.13

1914.

L.G.B. TABLE III. (part of).

CAUSES OF ALL DEATHS IN THE COUNTY AT DIFFERENT AGES.

Causes of Death.	Under 1 Year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	TOTAL.
Enteric Fever ... ..	...	1	1	6	4	1	13
Measles	4	15	1	...	1	...	21
Scarlet Fever ... ..	...	5	2	...	1	...	8
Whooping-Cough... ..	28	24	...	...	...	...	52
Diphtheria (including Membranous Croup)	2	4	20	1	...	...	27
Influenza	4	1	2	2	22	29	60
Erysipelas ... ..	...	...	1	1	2	1	5
Chicken-Pox ... ..	...	...	...	...	...	...	...
Cerebro-spinal Fever ... ..	...	...	...	...	...	...	...
Phthisis	1	4	17	44	123	9	198
Tuberculous Meningitis... ..	5	5	3	4	7	...	24
Other Tuberculous Diseases	1	5	4	3	15	1	29
Rheumatic Fever... ..	...	1	1	...	4	...	6
Cancer	1	...	1	2	129	160	293
Meningitis	13	10	5	4	5	...	37
Bronchitis	31	9	...	1	29	104	174
Pneumonia	32	44	10	5	50	44	185
Other Diseases, Respiratory Organs ... ..	...	1	2	...	12	10	25
Diarrhœa and Enteritis	73	12	3	2	3	13	106
Appendicitis ... ..	...	...	7	2	2	2	13
Alcoholism ... ..	...	...	...	...	10	2	12
Cirrhosis of Liver ... ..	...	...	...	...	9	8	17
Nephritis	1	...	5	2	44	31	83
Puerperal Fever ... ..	...	...	...	...	2	...	2
Other Accidents ... ..	...	...	...	7	9	...	16
Congenital Debility	203	6	...	...	...	...	209
Violent Deaths	4	17	4	15	48	17	105
Suicides ... ..	...	...	...	3	11	3	17
Heart Diseases	4	2	3	4	128	176	317
Other Defined Diseases	94	24	17	27	239	661	1062
Diseases, ill-defined or unknown	5	1	...	1	9	1	17
	506	191	109	136	918	1273	3133

County Infantile Death Rate ... 88.85.

DISTRICT.	BIRTHS.			DEATHS.			DEATHS AT AGES								CAUSES OF INFANT DEATHS.																															
	Legitimate.	Illegitimate.	Total.	Certified.	Uncertified.	Total.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Small-pox.	Chicken Pox.	Measles.	Scarlet Fever.	Diphtheria & Croup.	Whooping-Cough.	Diarrhoea.	Enteritis.	Phthisis.	Tuberculous Meningitis.	Abdominal Tuberculosis.	Other Tuberculous Diseases.	Congenital Malformations.	Premature Birth.	Atrophy, Debility, and Marasmus.	Atelectasis.	Injury at Birth.	Erysipelas.	Syphilis.	Rickets.	Meningitis (not Tuberculous).	Convulsions.	Gastritis.	Laryngitis.	Bronchitis.	Pneumonia (all forms).	Suffocation (overlying).	Other Causes.	Total.	Illegitimate Deaths.	
URBAN—																																														
Alford	36	14	50	6	...	6	1	...	1	...	2	2	...	1	1	1	1	2	2	6	2		
Barton-on-Humber	154	8	162	18	...	18	6	2	8	2	3	4	1	2	3	...	1	7	1	1	2	...	1	...	18	1			
Brigg	68	1	69	6	...	6	3	...	3	1	1	1	6	1		
Broughton	38	2	40	3	...	3	1	1	1	1	1	1	1	3	...			
Brumby and Frodingham ..	116	12	128	5	1	6	2	1	...	1	4	1	...	1	1	3	1	1	...	6	1		
Cleethorpes-with-Thruscoe .	592	20	612	56	1	57	15	2	3	4	24	6	13	11	3	2	6	3	3	9	15	1	2	...	2	...	4	4	4	...	2	57	3		
Crowle	70	5	75	
Gainsborough	520	25	545	67	1	68	11	4	6	1	22	12	14	8	12	3	10	8	1	15	9	1	...	7	4	7	...	3	68	8		
Horncastle	63	3	66	5	...	5	2	1	3	1	1	1	2	1	5	...		
Louth (Borough)	147	21	168	11	...	11	2	2	3	2	2	2	1	3	2	1	...	2	1	1	11	2		
Mablethorpe	10	...	10	1	...	1	1	1	1		
Market Rasen	42	3	45	4	...	4	1	1	1	...	2	1	1	1	4	...		
Roxby-cum-Risby	15	2	17	3	...	3	1	1	1	1	1	1	3	1		
Scunthorpe	346	17	363	40	...	40	4	2	...	1	7	15	6	6	6	3	7	2	7	11	1	3	2	2	...	2	40	12	
Skegness	56	5	61	2	...	2	1	1	2	2	2	1		
Winterton	39	1	40	5	...	5	1	1	2	...	1	1	1	1	5	...		
Woodhall Spa	18	2	20	2	...	2	1	1	1	1	2	1			
Total	2330	141	2471	234	3	237	49	11	10	9	79	51	40	40	27	2	12	28	19	...	2	4	50	44	2	2	...	4	1	6	19	3	...	12	17	1	9	237	33	
RURAL—																																														
Glanford Brigg	863	35	898	80	2	82	25	3	3	3	34	11	15	12	10	1	...	1	6	1	6	...	3	2	17	9	1	1	...	1	...	3	11	1	...	3	4	...	11	82	7	
Caistor	237	15	252	14	...	14	3	1	3	...	7	4	2	...	1	4	2	2	2	1	...	3	14	...			
Gainsborough	270	19	289	19	1	20	2	...	1	1	4	5	3	3	5	1	1	1	1	1	...	3	3	1	1	...	3	1	3	20	5	
Grimsby... ..	271	13	284	23	4	27	6	...	2	...	8	8	5	3	3	1	1	4	5	4	2	4	5	1	27	1	
Horncastle	267	13	280	24	3	27	6	2	1	2	11	3	5	2	6	3	2	1	...	8	1	...	1	1	4	2	2	...	2	27	2	
Isle of Axholme	123	4	127	15	...	15	4	1	2	...	7	...	5	2	1	1	3	7	1	...	1	1	1	...	15	3	
Louth	325	29	354	34	1	35	6	1	3	2	12	8	6	8	1	1	2	...	3	1	8	7	1	3	1	...	3	3	...	2	35	2	
Sibsey	77	7	84	12	...	12	7	1	8	1	...	3	1	6	5	12	...	
Spilsby	399	28	427	26	1	27	9	...	4	2	15	4	2	3	3	2	11	5	1	...	2	4	1	1	27	8	
Welton	216	13	229	9	1	10	3	...	1	1	5	2	2	...	1	2	3	3	10	...	
Total	3048	176	3224	256	13	269	71	9	20	11	111	46	45	36	31	2	...	2	16	7	19	...	3	...	2	3	63	39	4	2	...	2	1	7	37	3	...	19	15	1	22	269	28	
Administrative County ..	5378	317	5695	490	16	506	120	20	30	20	190	97	85	76	58	4	...	2	28	35	38	...	5	...	2	7	113	83	6	4	...	6	2	13	56	6	...	31	32	2	31	506	61	

The decline in the birth rate continues to be marked in the Rural Districts, notably in Caistor (19.24), Gainsborough (19.51), Isle of Axholme (18.51), Louth (19.44), and Spilsby (20.15).

In the Urban Districts high rates were recorded in the towns of the Ironstone District, namely, Brumby and Frodingham (40.51), Roxby-cum-Risby (45.3), and Scunthorpe (31.9). In the Urban Districts of Broughton and Winterton, where a large number of the inhabitants work in the Ironstone District, the rates were 28.4 and 27.6 respectively.

Elsewhere the Urban birth rates were low, particularly so in Horncastle (17.13), Louth (16.79), Mablethorpe (7.49), Market Rasen (19.29), Skegness (11.84), and Woodhall Spa (12.07).

DEATH RATE.

2,999 deaths were registered in the County in 1914. The Registrar General transferred 143 of these, being non-residents, to other districts, and added the deaths of 277 residents who had died during the year outside the County. The nett deaths belonging to the County therefore numbered 3,133, giving a **death rate of 12.56 per 1,000**, compared with 12.47 per 1,000 in 1913.

The mean nett Urban Death Rate was 12.67 per 1,000, and the nett Rural Death Rate 12.49.

Skegness has the distinction of having had the lowest death rate in the County for the past two years.

When correction is made for age and sex distribution the County Death Rate was only 10.83, that of the Urban Districts taken together 11.79, and that of all the Rural Districts 10.26.

The following table shows the crude death rates for the County, and for its Urban and Rural Districts for the past six years, compared with those for England and Wales.

	1909	1910	1911	1912	1913	1914
England and Wales	14.5	13.4	14.6	13.3	13.7	14.0
Administrative C'nty	13.30	12.85	13.47	12.3	12.47	12.56
Urban Districts ...	11.77	11.77	13.68	12.4	12.98	12.67
Rural Districts ...	14.54	13.67	13.34	12.3	12.80	12.49

INFANT MORTALITY.

506 infants died in the County under one year of age in 1914, namely, 237 in the Urban Districts and 269 in the Rural Districts.

The rate per 1,000 births for the County was 88.85, compared with 100.84 in 1913 and 88.5 in 1912. In the Urban Districts the rate was 95.91, and in the Rural Districts 83.43. The corresponding rates in 1913 were :—Urban 110.79, Rural 93.67.

Although the infant mortality rate for the County as a whole is less than it was in 1913, yet it is actually slightly higher in seven of the seventeen Urban Districts and in six of the ten Rural Districts.

The improvement in the rate in the other Districts does not appear to be attributable to a special reduction in any one cause of mortality with the exception of pneumonia which claimed only half the number of victims recorded in 1913.

The death rate amongst illegitimate infants was, with a few exceptions, higher in all the Districts than amongst the legitimate. It was particularly high in Gainsborough and Scunthorpe, and in the Rural Districts of Gainsborough and Spilsby.

It is to be noted that the illegitimate birth rate has been persistently high for some years in the Urban District of Alford.

The Notification of Births Act has been adopted by the Urban Districts of Brumby and Frodingham, Crowle and Scunthorpe. In Crowle there were no infantile deaths during the year. In the other two districts the mortality was to some extent reduced. These two districts are in the Ironstone area where there is a considerable population of unskilled labourers. It must be expected that the campaign to educate the mothers there will be a prolonged one, and we cannot look for a considerable reduction in the preventable mortality for some time. Much good work is being done by the District Nurses who have been appointed by the Councils as Health Visitors under the Act. It is to be regretted that the Urban District of Crowle has not re-appointed the Health Visitor for the year 1915, in spite of the manifest value of her work and the altogether trifling cost of her services.

The adoption of the Notification of Births Act by County Councils was urged by the Local Government Board in a

L.G.B. TABLE IV. (part of).

THIS TABLE SHOWS THE AGES AT WHICH THE DEATHS UNDER ONE YEAR OCCURRED AND THE CAUSES OF DEATH:—

Cause of Death.	Under 1 Month.	1 and under 3 Months.	3 and under 6 Months.	6 and under 9 Months.	9 and under 12 Months.	Total.
Small-pox ... ..	...	...	...	...	...	...
Chicken-pox ... ..	...	...	...	...	...	...
Measles ... ..	...	...	...	3	1	4
Scarlet Fever ... ..	...	...	...	...	...	...
Diphtheria & Croup ... ..	...	...	...	1	1	2
Whooping-Cough	2	3	5	8	10	28
Diarrhoea	2	8	12	9	4	35
Enteritis	2	12	9	9	6	38
Tuberculous-meningitis..	...	...	...	3	2	5
Abdominal Tuberculosis	...	...	...	...	...	...
Other Tuberculous Diseases ... ..	...	...	1	...	1	2
Congenital Malformations	3	2	1	1	...	7
Premature Birth	100	13	...	...	...	113
Atrophy, Debility, and Marasmus	33	24	15	8	3	83
Atelectasis	5	...	1	...	...	6
Injury at Birth	4	...	...	...	...	4
Erysipelas ... ..	...	...	...	...	...	...
Syphilis	2	2	2	...	...	6
Rickets ... ..	...	...	1	...	1	2
Meningitis (not Tuberculous) ... ..	...	1	4	6	2	13
Convulsions	17	10	14	10	5	56
Gastritis	1	2	1	1	1	6
Laryngitis ... ..	...	...	...	...	...	...
Bronchitis	1	7	10	6	7	31
Pneumonia (all forms)...	1	9	4	7	11	32
Suffocation (Over-lying)	1	...	1	...	...	2
Other causes	16	4	4	4	3	31
	190	97	85	76	58	506

circular letter to Sanitary Authorities, dated 10th July, 1914. The Public Health and Housing Committee at the meeting held on 17th July, 1914, instructed me to prepare a report upon the machinery required for bringing the Act into operation where not already in force. My report was presented at the October meeting. It was, however, not considered until the meeting held on 1st April, 1915, when it was resolved that while the Committee are favourably disposed to recommend the adoption of the Act they hesitate to incur any increased expenditure in this direction at the present time.

The following extracts are given from the report:—

“The Notification of Births Act, 1907, is an adoptive Act which provides for the notification of every birth in the district in which it is in force being made to the Medical Officer of Health within thirty-six hours after its occurrence.

“The object of the notification of births is to enable the Medical Officer of Health with the assistance of a staff of Health Visitors to enquire into the conditions which cause the present high rate of infant sickness and mortality and to take such measures as are possible to combat these conditions.

* * * *

“The work of home visitation is one to which the Local Government Board attach very great importance and in this County I am of opinion that the appointment of Health Visitors, specially qualified for the work by training and temperament, would be able greatly to reduce the mortality from such causes as diarrhoea, enteritis, marasmus and convulsions, which are largely due to a low standard of life, errors in diet, bad housing and defective sanitation. They would also be of great assistance in investigations into the causes of still birth, premature birth and of debility from birth, the latter two of which are responsible each year for nearly a quarter of the deaths of infants under one year of age.

* * * *

“If the County Council consider that the time is opportune to adopt this Act, as in my opinion it is, it would be well to look to the Lincolnshire Nursing Association to provide the necessary organisation. They have already undertaken the school and tuberculosis nursing required by the County Council, and it would not be difficult for them to make arrangements to undertake health visiting as well.”

As the Board's circular points out, the advantage of County administration is that the work of visiting homes in

which births have occurred, and giving advice to the mother with reference to the feeding of the infant and its protection from risk of disease may be entrusted to an officer who already works in the District and visits the homes as Inspector of Midwives, Tuberculosis Visitor, or otherwise.

One of the most important causes of infant mortality is summer diarrhœa. This disease is to a great extent fostered by dirt and insanitary conditions generally, and notably by insufficient attention to the scavenging of refuse. The house fly, which breeds in refuse heaps, acts as a ready carrier of dirt and disease to infant's food. The fly danger can best be dealt with by not allowing rubbish to accumulate for more than a week without removal. If this is for any reason impracticable the eggs and larvæ of the fly should be destroyed by covering the rubbish completely with earth or by the use of disinfectants. Flies in houses should be caught and destroyed by fly papers and other ways.

PHTHISIS DEATH RATE.

There were recorded 198 deaths from Phthisis or Pulmonary Tuberculosis in 1914, compared with 190 in 1913. The mortality rate in 1914 was .79 per 1,000 of the population ; in 1913 it was .77 per 1,000. The rate was lower in the Rural Districts than in the Urban, viz., .72 in the former, and .89 in the latter. These death rates are shown graphically in the accompanying chart.

DEATH RATE FROM OTHER TUBERCULOUS DISEASES.

Tuberculous Diseases other than Phthisis caused 53 deaths in the County in 1914, equivalent to a death rate of .21 per 1,000, compared with .33 in 1913. This death rate was a little higher in the Rural than in the Urban Districts.

ZYMOTIC DEATH RATE.

The Zymotic death rate is the mortality from the seven chief infectious diseases:—Small-pox, measles, scarlet fever, diphtheria, whooping cough, "fever" including enteric and continued fever, and diarrhœa. There were altogether 227 deaths from these diseases in the County in 1914, equivalent to a death rate of .91 per 1,000. In 1913 there were 192 such deaths, and the rate was .77 per 1,000.

In 1914 there were fewer deaths from measles, considerably more from whooping cough, and more from diarrhœa, than in 1913.

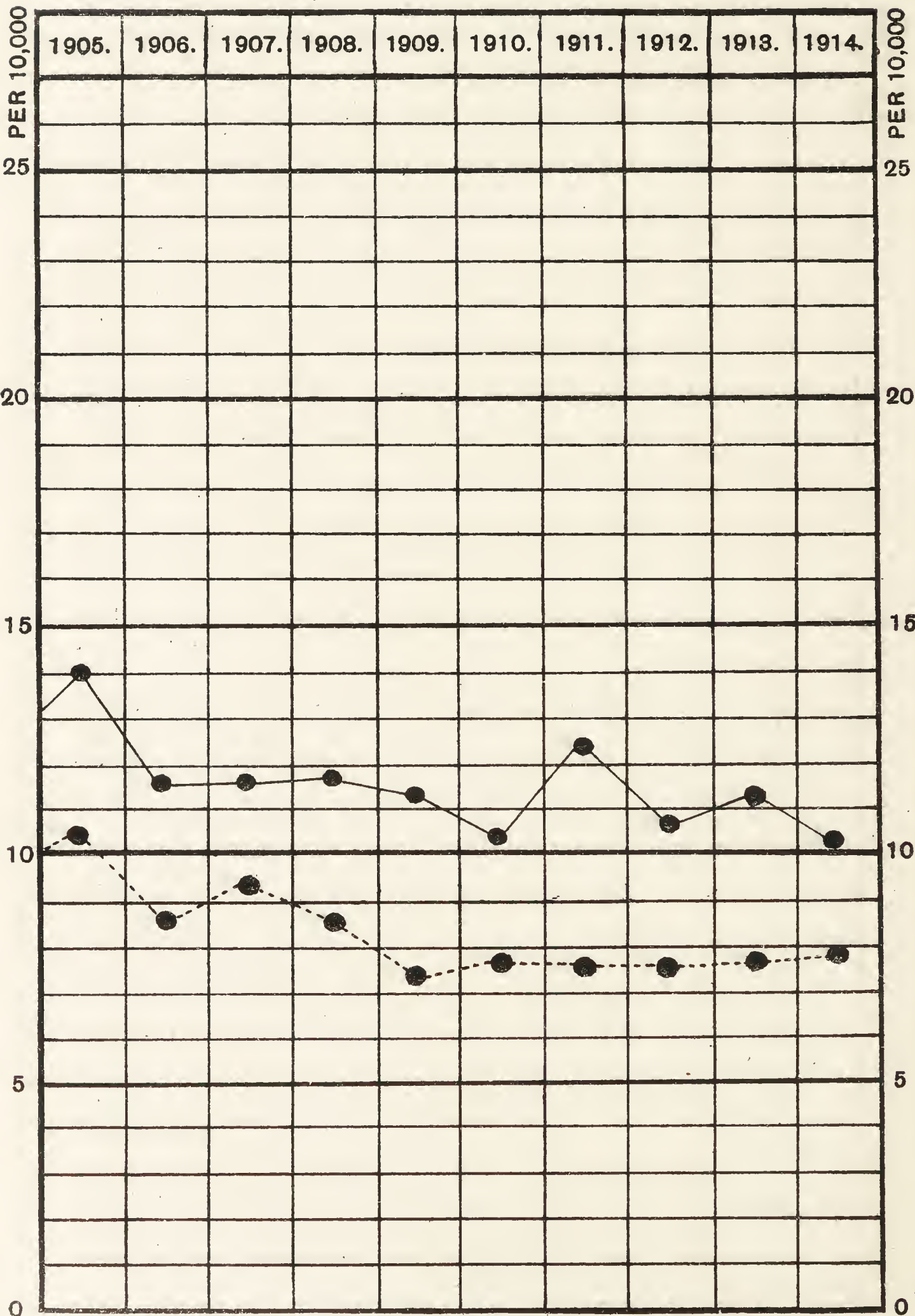
The number of deaths from each disease in the Urban and Rural Districts is given below.

A chart is also given setting out graphically the Zymotic death rate for the last ten years.

Chart showing Death Rates per 10,000 from Tuberculous Diseases in the County during 10 years, 1905-14.

Total Tuberculous Diseases thus **—————**

Phthisis **- - - - -**



Phthisis Rate 7.94

Total Tuberculous Diseases 10.07

Chart showing Death Rates per 10,000 from Zymotic Diseases in the County during 10 years, 1905-14.

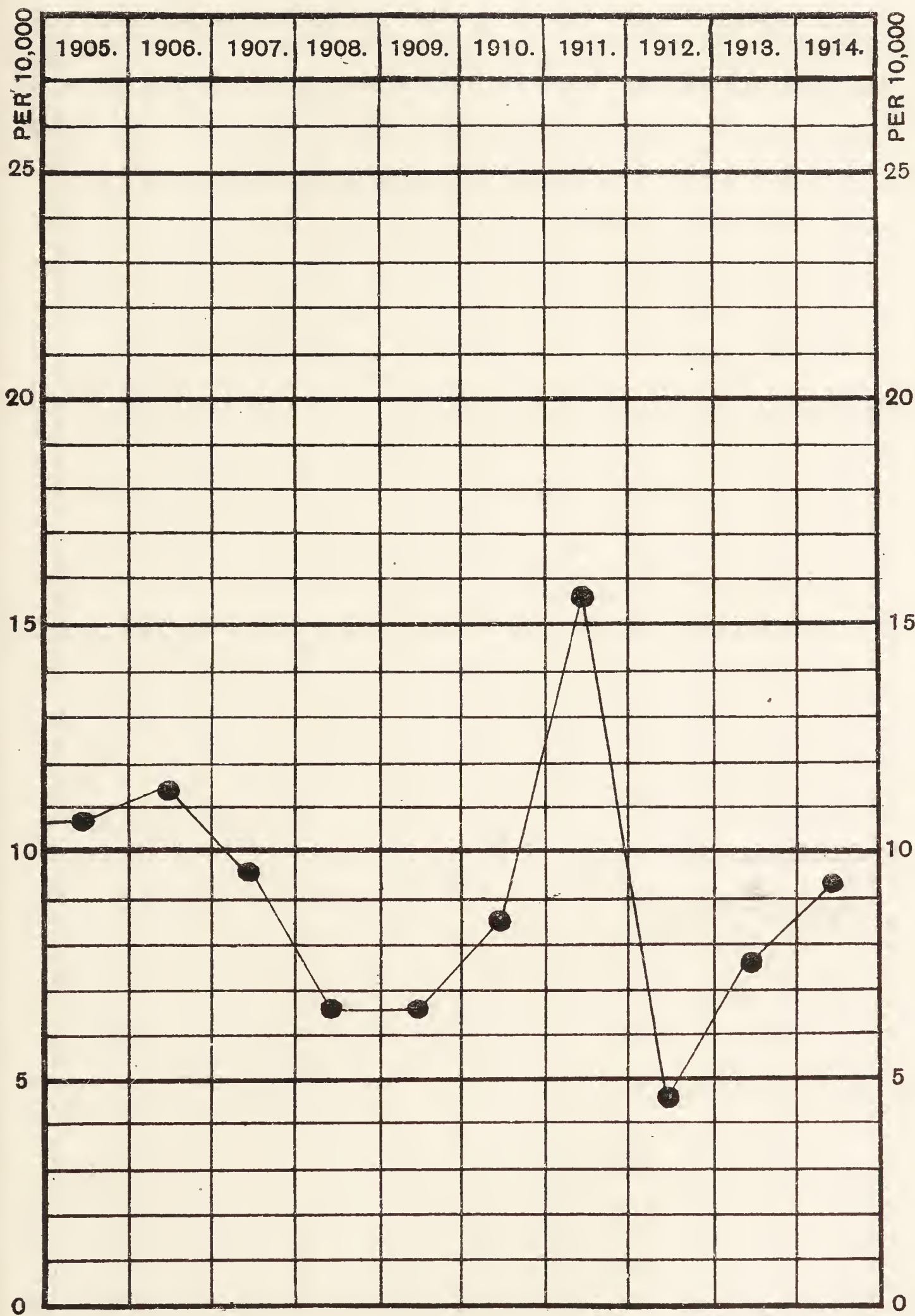
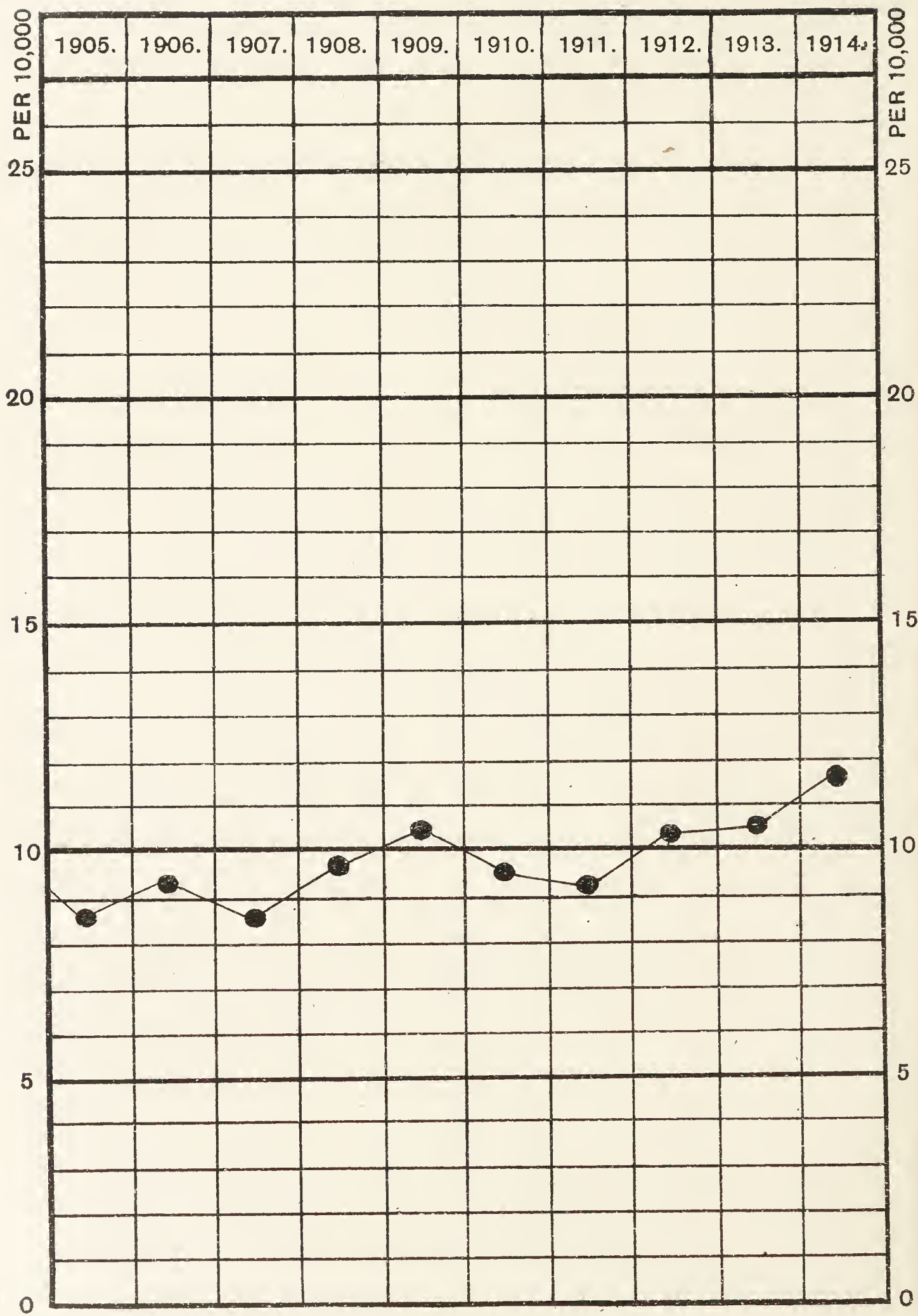


Chart showing Death Rate per 10,000 from Cancer
in the County during 10 years, 1905-14.



Death Rate 11.75

Name of District.	Small-pox.		Measles.		Scarlet Fever.		Whooping-Cough.		Diphtheria.		Fever.		Diarrhœa.		Total.	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Urban	0	0	13	'12	6	'05	26	'25	7	'06	9	'08	53	'51	114	1'10
Rural	0	0	8	'05	2	'01	26	'18	20	'14	4	'02	53	'36	113	'77
Total for whole County ...	0	0	21	'08	8	'03	52	'21	27	'10	13	'05	106	'42	227	'91

DEATH RATE FROM CANCER.

In 1914 there was again an increase in the number of deaths from cancer. 293 deaths were recorded from this disease, equivalent to a rate of 1.17 per 1,000. In 1913 and 1912 the numbers were 266 and 245 respectively. As in the past three years the death rate from cancer has been slightly higher in the Rural Districts than in the Urban.

The death rate from this disease for the last ten years is shown graphically on one of the accompanying charts.

DEATH RATE FROM DISEASES OF THE RESPIRATORY SYSTEM.

The number of deaths in the County from bronchitis, pleurisy and all other diseases of the respiratory system, with the exception of pneumonia, was 199 in 1914, with a death rate of .79 per 1,000, compared with 218 such deaths and a rate of .88 per 1,000 in 1913.

DEATH RATE FROM PNEUMONIA.

Pneumonia and broncho-pneumonia accounted for 185 deaths in 1914, equivalent to a death rate of .74 per 1,000. The rate in 1913 was .87 per 1,000. When pneumonia supervened in the course of an infectious disease and death resulted, the death was attributed to the infectious disease and not to pneumonia.

COUNTY SANITARY ADMINISTRATION.

COUNTY LABORATORY.

The County Laboratory was taken full advantage of by the Medical Practitioners in the County during the year.

At the close of the year 765 examinations had been made as follows :—

Throat Swabs in Diphtheria	...	...	337	Positive	52
				Negative	285
Sputum in Pulmonary Tuberculosis	...		249	Positive	69
				Negative	180
Blood for Widal Reaction in Enteric Fever			55	Positive	18
				Negative	37
Ringworm	...	...	...	...	119
				Positive	81
				Negative	38
Specimen of discharge from ear	...	...	1		
Specimens of pus	...	...	2		
„ „ Urine for T.B.	...	...	2		

SPECIAL REPORTS BY THE COUNTY MEDICAL OFFICER.

I. On the arrangements required for bringing into force the Notification of Births Act, if the County Council should decide to adopt that Act.

Extracts from this Report are given under the Section dealing with Infant Mortality.

II. On the Isolation Hospital accommodation available in the County with a suggested scheme for the provision of Isolation Hospitals by the County Council.

An Abstract of this Report will be found under the heading of Isolation Hospitals.

III. On the Sanitary Administration of the Market Rasen Urban District.

This Report was prepared on 8th April, 1914, and has already been considered by the County Council.

The matters chiefly criticised may be summarised as follows :—

1. The Inspector of Nuisances does not keep separate books for details of work done in respect of each of the premises over which the Council exercise control, as required by the Sanitary Officers (outside London) Order, 1910.

2. There are practically no Bye-laws in respect of public health matters in force in the district and none of the adoptive Public Health Acts are in force.

3. No forms are supplied by the Council for the Notification of Infectious Diseases.

4. The closets of both schools are box closets which should be converted into water closets.

5. The method of construction of disconnection chambers in connection with house drains should be laid down by Bye-law.

6. Arrangements are not made at junctions of the sewerage system to ensure a rapid flow. Solid matter tends to sediment in the pipes.

7. The Sewage Disposal Works do not now yield a satisfactory effluent.

8. The privy ashpits in the town are a danger to health. They are only emptied at long intervals. Privies should be converted into water closets and sanitary bins should be provided.

9. More systematic inspection is required under the Housing (Inspection of District) Regulations.

10. No register is kept of workshops and work places and systematic inspections are not made.

11. A Slaughter-house in Queen Street should not be allowed in that congested locality. Several cowsheds are insanitary and cows are unclean.

A copy of the Report was sent to the District Council and to the Local Government Board, but I have not heard that any change has been made in regard to the sanitary administration of the district.

**SPECIAL REPORTS received from District Medical
Officers of Health and presented to the Public
Health and Housing Committee.**

Name of District and Medical Officer of Health.	Subject of Special Report.
<p>LOUTH BOROUGH. W. J. Best, M.R.C.S , D.P.H.</p>	<p>Report <i>re</i> Housing of the Work- ing Classes in the District.</p>
<p>MARKET RASEN U.D. D. F. Torrens, B.A., M.B., D.P.H.</p>	<p>Outbreak of Diphtheria in the District.</p>
<p>GLANFORD BRIGG R.D. J. M. Mitchell, M.D., D.P.H.</p>	<p>Outbreak of Enteric Fever at Crosby.</p>
<p>ISLE OF AXHOLME R.D. A. F. Messiter, M.R.C.S., L.R.C.P.</p>	<p>Outbreak of Diphtheria at Epworth. Report <i>re</i> Housing and Town Planning at Wroot. Report <i>re</i> Mr. Elwis' Cottages, Wroot.</p>
<p>HORNCASTLE U.D. A. Boulton, M.R.C.S., L.R.C.P., D.P.H.</p>	<p>Isolation Hospital Accommoda- tion for the District.</p>
<p>SPILSBY R.D. F. J. Walker, M D.</p>	<p>Report in respect of a demolition order as regards a cottage at Hundleby, and closing orders as regards cottages at Cumber- worth, and a house near Alford.</p>

NOTIFIABLE INFECTIOUS DISEASES.

One thousand two hundred and sixty-five cases of infectious disease were notified to the Sanitary Authorities in 1914, 675 in the Urban Districts and 590 in the Rural. There is an increase of 72 notifications in 1914 over those notified during 1913. During the year Ophthalmia Neonatorum has been added to the list of notifiable infectious diseases.

The District Medical Officers of Health send weekly, by arrangement, the notifications they receive to the County Medical Officer. These notifications are returned to the District Medical Officers with a summary of all the notifications in order that all may be kept informed of the presence of infectious disease in their neighbourhood.

The Local Government Board also issue a weekly summary, which, however, does not specify the villages in Rural Districts from which infection may spread. In the case of large Rural Districts unless the names of the villages in which cases occur are given the information is of little value.

Small-Pox and Plague.

No case of either of these diseases was notified.

Diphtheria.

There were 166 cases of diphtheria notified, viz., 65 in Urban Districts with a case rate of .63 per 1,000 of the population, and 101 in the Rural Districts with a case rate of .69 per 1,000. The case mortality in the Urban Districts, where there were 7 deaths from the disease, was 10.77 per cent.

In the Rural Districts the mortality was 19.80 per cent., and in the County 16.26 per cent.

The incidence of diphtheria and of enteric fever is generally taken as an index of the state of sanitation of a locality. Other throat inflammations, and also diarrhoeal diseases, are caused by defective sanitation, but not being notifiable their incidence in each locality is unknown.

In Table II. the rate of incidence of diphtheria in each District is given in the next column to the number of cases notified. It will be seen that the highest incidence in 1914 is reported from the Urban Districts of Market Rasen, Cleethorpes and Brigg; and from the Rural Districts of Sibsey, Grimsby, Gainsborough and Louth.

L.G.B. TABLE II.

THIS TABLE INDICATES THE NATURE AND DISTRIBUTION OF THE CASES NOTIFIED:—

SANITARY DISTRICTS.	Total number notified.	Small-pox.	Cholera.	Diphtheria and Membranous Croup.		Erysipelas.	Scarlet Fever.	Enteric Fever.		Relapsing and Continued Fever.	Puerperal Fever.	Pulmonary Tuberculosis.	Other Tuberculous Diseases.	Poliomyelitis.	Cerebro-spinal Meningitis.	Ophthalmia Neonatorum.	Isolation Hospital.
				No.	Rate			No.	Rate								
URBAN.																	
Alford	17					2		1	'42			13	1				No.
Barton-on-Humber	40					6	14					11	9				No.
Brigg	6			3	'87			3	'87								Yes.
Broughton	Nil																No.
Brumby & Frodingham	19						5				1	7	2			4	{ Yes. For Small-pox only.
Cleethorpes ...	143			23	'94	10	31	6	'24			52	16			5	{ Yes. Grimsby Borough Fever Hospital.
Crowle	18					1	10	1	'34		1	1	4				No.
Gainsborough ...	242			5	'23	21	183	5	'23			22	4		1	1	Yes.
Horncastle ...	13						12								1		Yes.
Louth	47			2	'19	12	1	7	'69			20	3		1	1	Yes.
Mablethorpe ...	12					1	5					5	1				No.
Market Rasen ...	34			24	10'28		1	6	2'57		1	1	1				Yes.
Roxby-cum-Risby	1							1	2'66								No.
Scunthorpe ...	51			5	'44	2	13	1	'08		1	21	2	1		5	No.
Skegness	14			3	'58	3	8										Yes.
Winterton	5						5										No.
Woodhall Spa ...	13						10					1	2				No.
	675			65	'63	58	298	31	'30			4	154	45	3	1	16
RURAL.																	
Glanford Brigg ...	82			10	'31	17	36	18	'56		1					1	Yes.
Caistor	44			2	'15	7	10					16	8				Yes.
Gainsborough ...	81			23	1'55	6	25	5	'33		1	16	5				Yes.
Grimsby	84			29	2'33	2	37	1	'08			14	1				{ Yes. In Grimsby Borough Fever Hospital, & the R.D.C. Isolation Hospital at Immingham
Horncastle	62			2	'15	1	45	2	'15			8	4				No.
Isle of Axholme ...	14			1	'14	1	3					7	2				No.
Louth	86			13	'71	14	21	3	'15		3	28	4				No.
Sibsey	19			11	3'64		4					2	1			1	Yes.
Spilsby	98			4	'18	10	44	3	'14			32	4	1			Yes.
Welton	20			6	'54	3	11										{ Lincoln City Fever Hospital
	590			101	'69	61	236	32	'21			5	123	29	1	2	
Total for County...	1265			166	'66	119	534	63	'25			9	277	74	4	1	18

Erysipelas.

One hundred and nineteen cases of this disease were notified in 1914 with five deaths.

Scarlet Fever.

Five hundred and thirty-four cases were notified during 1914. There were eight deaths.

Enteric or Typhoid Fever.

Sixty-three cases of enteric fever were notified in 1914, compared with 66 in 1913. The case rate in the County was .25 per 1,000 and the rate of mortality (13 deaths) 20.63 per cent.

In the Urban Districts the case rate was .30 per 1,000 and as there were nine deaths amongst 31 cases the rate of mortality was 29.03 per cent.

In the Rural Districts the case rate was .21 per cent. with a mortality of 12.5 per cent.

In Table II. the case rate is given in addition to the number of cases for each District.

Tuberculosis.

Altogether 351 cases of tuberculosis were notified in 1914. Of these there were 277 cases of tuberculosis of lungs, and 74 of other tuberculous diseases.

As there were 198 deaths from tuberculosis of the lungs, and 53 from other tuberculous diseases it is obvious that a large number of cases were not notified.

Poliomyelitis.

Four cases were notified during 1914 as against two in 1913.

Cerebro-Spinal Meningitis.

Only one case was notified during the year.

Ophthalmia Neonatorum.

Eighteen cases were notified during 1914.

METHOD OF DEALING WITH INFECTIOUS DISEASES.

The practice of Medical Officers of Health in the County in regard to investigating cases of infectious disease varies from taking practically no steps at all, as at Barton, to a personal visitation in each case, as in the Grimsby Rural District. A number take a middle course of

entrusting to the Inspector of Nuisances the routine investigations and visiting the cases personally when the Inspector reports that the source of infection is not obvious or the means of isolation insufficient. An example of this method of procedure is found in the Glanford Brigg Rural District.

In school epidemics the School Medical Officer co-operates with the Medical Officers of Health in seeking for missed or carrier cases.

Disinfection of the houses is carried out when the medical practitioner in attendance notifies the Medical Officer of Health that infection is at an end. This disinfection is generally carried out by formalin vapour or sulphurous acid gas.

There are arrangements for the steam disinfection of clothing and bedding in the Urban Districts of Cleethorpes, Gainsborough and Louth, and in the Rural Districts of Gainsborough, Isle of Axholme and Welton.

I take this opportunity of urging that the practice of issuing certificates to school teachers when **disinfection has been carried out in the case of SCARLET FEVER** should be made general. This would help to avoid the possibility of children returning to school before infection is at an end.

The measures taken in cases of **DIPHTHERIA** are (a) free examination of swabs for diagnosis at the County Laboratory, (b) the supply of antitoxin without charge to poor persons by most of the Local Sanitary Authorities, (c) the examination of swabs in the case of school children to prove freedom from infection after recovery, and the payment by the Local Authorities of fees to the Medical Attendants for taking them, and (d) the issuing of certificates by the School Medical Officer to teachers when the swabs prove freedom from infection.

Arrangements have been made for the examination, free of charge, of **blood specimens in suspected cases of ENTERIC FEVER.**

It would be an advantage if facilities for water analysis were also afforded at the County Laboratory for the bacteriological examination of the water supply of houses where cases of Enteric Fever occur.

In the case of all the notifiable infectious diseases isolation and proper treatment are not easily obtained in the houses of

the working classes. The isolation hospital provision is fully discussed in the next section of this Report.

Tuberculosis.

The campaign against tuberculosis was reinforced in March of 1914 by the establishment by the County Council of Tuberculosis Dispensaries or Centres for the diagnosis, treatment and supervision of cases of all forms of tuberculosis, except cases of advanced disease in which supervision alone is given. The District Medical Officers of Health are still responsible for the investigation of the newly notified cases, but an arrangement has been made whereby this work of investigation is carried out by the Assistant County Tuberculosis Officers, whose reports are transmitted to the Medical Officers of Health.

The organisation consists of a staff of five part-time Tuberculosis Officers, namely, the County Medical Officer as Chief Clinical and Administrative Tuberculosis Officer, and four Assistant Tuberculosis Officers, who combine this work with that of School Medical Inspection.

The nursing required in connection with the Dispensaries is chiefly of an educative character. It has been entrusted to the Lincolnshire Nursing Association who have arranged for regular supervision of the cases by 34 District Nurses in their own Districts, and by seven whole-time nurses for the rest of the County. The whole-time nurses combine school nursing with tuberculosis nursing.

Eleven dispensaries have been established in the following towns. The staffing arrangements are those of 1914. They have since been altered owing to war exigencies.

Situation of Dispensary.	Medical Officer.	Nurse.
Lincoln	...Dr. Levis	...Nurse Bingle.
*Gainsborough		...Nurse Stewart.
Horncastle		...Nurse Clarke. (District Nurse).
Brigg	...Dr. Rigg	...Nurse Bayle.
*Scunthorpe		...Nurse Huntsman (District Nurse).
Epworth		...Nurse Linsley (District Nurse).
Barton-on-Humber	...Dr. Wilson	...Nurse Carter.
*Cleethorpes		...Nurse Hardy.
Market Rasen		...Nurse Bayle.
*Louth	...Dr. Walker	...Nurse Jenkinson.
Spilsby		...Nurse Chappell.

*In these Dispensaries patients are seen twice a week,
in the others once a week.

The nursing provided by the Lincolnshire Nursing Association was most satisfactory, especially in the whole-time nurses areas. Some of the district nurses also gave most efficient service. It is expected that after further instruction all the district Nurses will show an equal enthusiasm for the work as the whole-time nurses do.

The following figures are taken from a return recently furnished to the Local Government Board. During the period of the year in which the Dispensaries were at work, namely, from 1st March to 31st December, 1914, there were seen a total of 440 patients, namely, 208 insured persons and 232 uninsured. Of these 361 were diagnosed as suffering from tuberculosis; 66 were diagnosed as not suffering from the disease, and at the end of the year there were 13 still under observation for diagnosis. Out of the total of 440 there were treated or supervised 361 patients, of whom 180 were insured.

At the end of the year there were 105 insured and 144 uninsured on the dispensary books.

Most of the cases of tuberculosis notified after 1st March, 1914, both pulmonary and non-pulmonary were visited by the tuberculosis officers and a report made on the origin of infection, the sleeping arrangements and the sanitary condition of the house and surroundings. 424 persons living in close contact with the notified cases were examined and 52 were found to be infected. This part of the work is most valuable as helping to get the disease treated and supervised at an early stage when its arrest or cure is more possible than later. Cases in school children of early tuberculosis of the lung and of tuberculosis of glands, bones and joints are referred to the dispensaries for supervision and in some cases for treatment.

64 open-air shelters have been supplied and used with marked benefit by a large number of patients.

I append extracts from reports supplied me by Drs. Rigg and Wilson.

Report of Dr. Rigg on the work of the Tuberculosis Dispensaries in his area in 1914 :—

During the year work was carried out by me at three dispensaries: Scunthorpe, Brigg and Epworth, and in the surrounding districts.

Owing to the limited time available, $3\frac{1}{2}$ days a week, the large area and the bad travelling facilities—few trains and

bad connections, muddy roads and ferries served by most dilatory boatmen—it was found impossible to give treatment such as tuberculin injections with the degree of precision that could have been wished.

An attempt was made at Scunthorpe, where the Dispensary was held twice a week.

At Brigg and Epworth the dispensaries were attended once a week.

The tuberculosis work really consists of several distinct departments.

(1) A PUBLIC HEALTH DEPARTMENT.

In this the Tuberculosis Officer acts as Assistant Medical Officer of Health and inspects the premises and environment of notified tuberculous patients, giving instructions as to how they should live so as to prevent spread of infection.

The Tuberculosis Officer also examines contacts of such cases.

In this department 43 notified cases of tuberculosis were visited and 114 contacts examined either at the homes or afterwards at the dispensaries.

Seven of these were found to be infected with tuberculosis.

The visits of the Tuberculosis Officer were supplemented and extended by the visits of the nurses in the different districts comprised in the area.

(2) A DIAGNOSIS DEPARTMENT.

In this the Tuberculosis Officer acts as consultant to the general practitioner in cases of suspected tuberculosis.

In this connection 33 patients were visited or seen at the dispensary and were decided to be non-tubercular. Thirteen other patients were diagnosed as tubercular and remained under their own doctor's care, and at least seven were decided to be tubercular and came under treatment at the dispensaries.

In 8 cases tuberculin was used diagnostically by subcutaneous injection.

The result was positive in two instances and indeterminate or negative in six.

(3) A SCHOOL CHILDREN'S SUPERVISION DEPARTMENT.

In this department quite a number (about 20) of school children who had been excluded from school for chest conditions were seen at intervals and their progress determined.

Some of these were handed over by their own doctor for treatment at the dispensary and accordingly fall within the scope of the next department.

(4) A DISPENSARY DEPARTMENT.

In which are supervised and treated cases of suspected and frank pulmonary tuberculosis, and also those of tuberculosis of the skin, glands, bones and joints, larynx and abdomen.

These cases attend the dispensaries or are visited by the Dispensary Officer for special treatment, such as injections of tuberculin.

(5) A BACTERIOLOGICAL DEPARTMENT.

For staining and examining sputa for tubercle bacilli.

Fifteen examinations were made and tubercle bacilli found in three instances.

TUBERCULIN TREATMENT.

Injections of tuberculin were given for treatment in 19 cases in all.

In some the results appeared good. For example, an early case with hæmoptysis after nine months treatment has been able to return to work with practically no physical signs in the lungs and no appreciable symptoms for the last three or four months.

In other cases the results were only moderate, and the patient derived more benefit from being sent to a sanatorium.

In still other cases, which were of an unfavourable type from the beginning, the treatment had to be abandoned.

Those patients who had sanatorium treatment as well as tuberculin injections made, on the whole, better progress than those who had only tuberculin treatment. At least three patients who had the combined treatments (generally in succession, not simultaneously) have returned to work—apparently cured—and others have benefited considerably.

INSTRUCTIONS TO PATIENTS DEFINITELY DIAGNOSED AS
PHTHISICAL.

These fall under two heads :—

(1) MEASURES TO PREVENT SPREAD OF INFECTION.

(2) MEASURES TO PROMOTE THE PATIENT'S HEALTH.

(1) (a) That indiscriminate spitting constitutes a real danger and source of infection, and that a sputum flask be used with disinfectant, the sputum being afterwards burnt.

(b) That the mouth be not wiped with a handkerchief but with a piece of clean rag, which should afterwards be burnt.

(c) That the patient have a separate cup, fork and spoon to be used by no other person, and that he use no other such implements but his own.

(d) That the patient refrain from kissing.

(e) That the patient sleep alone in a bed and bedroom (or shelter) by himself with the windows widely open and with the minimum of hangings and carpets.

(f) That clothes, &c., that have run the risk of contamination by the patient's phlegm be disinfected before washing.

(2) FOR THE PATIENT'S HEALTH.

(a) That the patient sleep with the windows open in a separate room or shelter.

(b) That the patient eat a sufficiency of suitable food (especially milk, milk foods and eggs if obtainable) and take cod liver oil in some form.

(c) That the patient take his temperature regularly and rest in bed if it is over 99 degrees fahrenheit (there are exceptions to this rule). If the temperature be normal that he take outdoor exercise, increasing the amount gradually.

These instructions are not well carried out on the whole.

Patients who have been in Sanatoria as a rule carry them out much better than those who have not, but there are offenders even among the former class. It is difficult to get patients to use a sputum flask, especially if they are out of doors. They say that inside the house they spit into the fire but one does not know how often that means somewhere about the fireplace.

Also there is often deception and false statements about sleeping alone, as also of the number of people living in the house, and the truth only comes out by degrees, perhaps sometimes not at all.

To get the windows open is often the most difficult of all. The windows, often, absolutely won't open, and are nailed and puttied up, especially in country places. In some cases the window is open when the doctor or nurse is expected but found closed if the visit be made at an unusual time. Even with past Sanatorium patients this sometimes occurs, though in these cases it is often due to the prejudices or wishes of other people in the home.

To rest in bed is also an impossibility of persuasion with many patients. It is a superstition often even with well-educated people that to go to bed, if a person has phthisis, means a quick fatal termination with the consequence that the patients keep up and about till nearly dead and quickly succumb after their exhaustion has forced them to rest.

Report by Dr. Wilson for the period March, 1914, to 31st December, 1914 :—

The lines of treatment followed throughout in the three dispensaries under my care have been :—

(a) Symptomatic by medicine (when required).

(b) Constitutional :—

(1) By means of nutrient medicines, *e.g.*, cod liver oil, etc.

(2) By tuberculin.

In most cases tuberculin treatment has been combined with the administration of a nutritional restorative and in all cases fresh-air treatment has been followed out as far as possible. A considerable number have been accommodated with shelters.

In cases where sanatorium treatment has been given to non-insured persons I have been indebted to the co-operation of the local Poor Law Authority.

USE OF TUBERCULIN.

For treatment of pulmonary cases the tuberculin used has been in all cases P.T.O. The only non-pulmonary conditions treated with tuberculin have been five cases of tuberculous glands, and one case of lupus of the nose, all of which have been treated with B.E. Of the five cases of enlarged glands, two have remained permanently well for three months, another two are now apparently well but will remain under observation for some time, and in the other case now under treatment the condition is gradually improving. My experience leads me to believe that bacillary emulsion is a most valuable treatment for this condition.

The case of lupus of the nose has not been long under treatment but has considerably improved.

The treatment of pulmonary cases by means of P.T.O. has in some cases given good results. I have not exceeded a dosage of .1 cc. P.T.O., this dose being repeated at intervals of a week for four or five doses.

The dosage adopted has commenced as a rule with the following amounts :—

P.T.O. — .0001 cc.

B.E. — .00001 cc.

the increase of dose being guided by the scale of Bandelier and Ropke, viz. :—1, 1.5, 2, 3, 5, 7, 10.

All pulmonary cases under treatment with tuberculin have kept a record of their temperature.

The directions given are, I think, much more carefully carried out by those who have had the advantage of a period of treatment in a sanatorium, especially in regard to systematic following out of fresh-air methods.

The co-ordination of the school inspection scheme with the treatment of tuberculosis has enabled all infected or threatened cases of the disease arising in school children to be immediately placed under observation and treatment. A course of treatment given to all pre-tubercular children will undoubtedly lower the incidence of the disease in later life. The number of school children who have attended for observation or treatment is shown below :—

Market Rasen.	Barton.	Cleethorpes.
8	16	28

Apart from treatment the other work of the dispensary consists of :—

- (1) Supervision of the housing conditions of all notified cases as well as those in actual attendance at the dispensary.
- (2) Examination of contacts.
- (3) General instruction of all persons attending in the hygiene of the disease, the proper diet, value of rest and exercise, etc.

The improved lighting and ventilation which is now being introduced into the most recent schools established by the County Council render them very suitable for those children who have been threatened with the disease when they are sufficiently well to resume school work.

Bad feeding and bad housing are probably the most weighty factors in the etiology of the disease, and the campaign of the future against tuberculosis will require all the assistance it can get from such other schemes as will deal with these matters.

ISOLATION HOSPITALS.

The character of the existing accommodation for the isolation and treatment of cases of infectious disease was considered by the Public Health and Housing Committee at the Quarterly Meeting, held on 16th October, 1914, when a communication was received from the Local Government Board recommending that beds for the hospital treatment of cases of tuberculosis should be established in separate pavilions at Isolation Hospitals.

The following resolution was passed :—

Resolved upon consideration of the whole matter that the Committee are of opinion that the existing Isolation Hospitals in Lindsey are of such a character that it is not wise to attempt to adapt them for hospitals for the treatment of advanced tuberculosis, and that the whole question of hospital accommodation of this nature in conjunction with Isolation Hospitals be further considered at a future meeting, and that the Chief Tuberculosis Officer be requested to prepare a report of his views and proposals for the entire County for consideration at the same time.

My report was presented to the Committee on 6th January, 1915.

The following extracts are given :—

1. CHARACTER OF THE EXISTING HOSPITALS FOR INFECTIOUS DISEASES.

BRIGG URBAN DISTRICT.

The hospital is a wooden structure lined outside with sheets of tarred canvas. There are two wards each containing two beds and between them there is a nurses' room. The wards are poorly lighted and ventilated and the walls are damp. The air space per bed is below the standard. At a little distance unconnected with the wards there is another small hut used as a kitchen. The site which is bounded by wire fencing, broken in places, measures 38 yards by 10 yards.

It is at least a mile by road from Brigg Station, and the metalled road ends half a mile from the hospital, the remainder of the distance being along a bye-lane, with an exceedingly bad surface. This lane could not be used in winter by an ambulance. The site is rented from a tenant of Mr. Gervase Elwes for a sum of £3 annually. In the same field as the hospital there is a poultry farm, and the

ground is infested with rabbits, for there are burrows in all directions, both under and around the hospital.

There is no water supply, and no means of sewage disposal. The closet accommodation consists of two pail closets.

BRUMBY AND FRODINGHAM URBAN DISTRICT.

The hospital consists of a wood and iron pavilion, built in 1906, consisting of one ward with four beds, with a nurses' bedroom, store room, kitchen and wash-house. The walls are matchboarded. The rain gutters and down spouts are in disrepair.

The site of half an acre of land which is rented for £1 a year from Lord Beauchamp is situated in a fir wood, $2\frac{1}{2}$ miles from Frodingham, down a very steep hill.

The water supply is derived from a large underground rain water cistern, and drinking water is carted from a distance of half-a-mile. There is a tub closet at some distance from the hospital, and the sewage is conveyed to a cesspool.

The building was originally erected for Small-pox, and would possibly suffice to deal with a limited outbreak of that disease.

GAINSBOROUGH URBAN DISTRICT.

The accommodation in the Gainsborough Hospital is for 16 beds. There are 8 beds in two brick pavilions of antiquated pattern, with a nurse's bedroom attached to each pavilion. The walls are rough and unplastered and there are long ventilator gratings in the roof of each which cannot be kept clean. Each has a water-closet and slop sink in an annexe. There is no patients' bathroom in these pavilions. The remaining 8 beds are provided in a temporary pavilion of wood and iron of the usual type.

The other buildings consist of a van shed, laundry and disinfecting station, and a porter's lodge, with a sitting-room, bedroom and kitchen.

The town water supply is laid on, and the drains are connected with the sewers.

The site is leasehold on Foxby Hill close to the Great Northern Railway Station. It is held at a low rent and there is a condition that no trees may be cut down. The hospital requires to be remodelled and extended to meet the needs of the town in time of epidemic, and this condition prohibits extension.

HORNCASTLE URBAN DISTRICT.

The Urban Council have rented a house at one end of the town on the Spilsby Road to serve as a hospital. They pay a rent of £14 a year. It was taken on a seven years' lease eighteen months ago. The building is 20 yards distant from the nearest dwelling-house. Two rooms are furnished as wards giving accommodation for four patients. The air space per bed is much below the standard. A caretaker lives on the premises and she acts as nurse when the hospital is in use. She is not fit to be entrusted with such work. There is no accommodation for a proper nursing staff. The closet is an outside privy at present, but a water-closet has been ordered to be put in the bathroom. The drains are connected with the town sewers. There is a garden measuring about 75 yards by 25 yards.

An old omnibus has been converted into an ambulance for the conveyance of fever patients. Besides the insufficiency in the accommodation for nurses, the hospital is also unsatisfactory in being near a dwelling-house, the garden of which adjoins that of the hospital with only a hedge intervening. While one or two cases of scarlet fever or diphtheria may occasionally be treated without ill-effect in a dwelling-house, it cannot be considered as anything but a makeshift arrangement, since complications and return cases are likely to occur in time of epidemic.

LOUTH BOROUGH.

The Louth hospital is situated on the Spilsby Road, three-quarters of a mile from the market place and one mile and a quarter from the railway station. It is 300 yards off the main road with a good approach. The site consists of an acre and a quarter of land, enclosed by a close boarded fence on three sides and by a high hedge on the fourth side. It is part of a property of 25 acres owned by the Borough Council. The land is light clay, sloping to the south with a gradient of about 1 in 15.

There is a caretaker's lodge, but no administrative building. The hospital consists of one pavilion of wood and iron, with match-boarded walls on brick foundations. There are two wards, each with accommodation for 4 beds. Each ward has a satisfactory annexe with a water-closet, and a bathroom. One of the baths is portable, but the other is a fixed one, with hot and cold water laid on.

Between the wards there are two small rooms for a nurse, with a kitchen and storerooms.

The water supply is from the town main, and a hot water cylinder has been fixed in the kitchen. Sewage is passed through a small septic tank, and then percolates through the ground.

The hospital is provided with a modern steam disinfecter, and with a small building with three rooms for use as a mortuary, wash-house and storeroom.

The hospital is very rarely used because there is no permanent nursing staff and it has to undergo the process of 'opening' before patients can be received. That process always presents difficulties and practically discourages recommendations for isolation.

MARKET RASEN URBAN DISTRICT.

The Urban Council of Market Rasen pay a small share of the standing charges of the isolation hospital in the Caistor Rural District, and send their cases of scarlet fever to that hospital. Recently owing to an extensive outbreak of diphtheria it was found necessary to erect and equip a hospital for that disease. The diphtheria hospital is of wood with a corrugated iron roof. There is one ward with accommodation for six patients. An adjoining cottage is rented for administration purposes. This hospital is only intended as a temporary expedient until the Caistor District Hospital is enlarged.

SKEGNESS URBAN DISTRICT.

The hospital is situated about a mile and a half from the town on a site of half-an-acre of land rented for £12 5s. 0d. a year from the Earl of Scarborough, the lease expiring in 1922. The buildings consist of a caretaker's lodge, containing a dining-room, sitting-room, kitchen, bedroom, pantry, wash-house, mortuary and coal shed, and a hospital pavilion of wood and iron with two wards of six beds each. The air space per bed is below the standard required by the Local Government Board. In the pavilion there is a nurse's duty room and bedroom with two annexes with closets and linen stores. The water supply is carted from Skegness. There are pail closets and a cesspool for sewage.

The hospital although primitive in character has been of great service to the town and a large number of cases have been isolated there. So great is the desire to protect the town from infection that occasionally the risk has been run of isolating children suffering from two different diseases

in the building at one time. At other times cases have been refused admission owing to lack of accommodation.

The rent of the site is high and the nursing charges are excessive in proportion to the number of patients treated. The cost per patient is therefore high while the accommodation is exceedingly poor.

GLANFORD BRIGG RURAL DISTRICT.

The hospital for this wide Rural District is situated at Goxhill on land vested in the Council as a gravel pit. The ground occupied by the hospital measures 3 roods 37 perches. Adjacent to the hospital there is a deep pond. The soil is gravel on chalk. The site is a mile and a half from Goxhill Station and is close to a good road. It is, however, very remote from most of the villages in the district, and is 13 miles from Brigg, where the Medical Officer of Health who attends the patients, resides. There is no proper ambulance.

There is no administrative building and the caretaker, who is paid £12 a year, lives at a distance of two miles from the hospital. The hospital pavilion is of wood and iron with two wards, each accommodating three beds. In the pavilion there is a nurses' bedroom and dutyroom and a kitchen. The accommodation for nurses is inadequate. There is a small detached portable van used as a wash-house. This hospital is quite insufficient for the needs of the district.

CAISTOR RURAL DISTRICT.

The hospital is situated on a Council property of 9 acres, one mile and three quarters from Usselby railway station, and a little over two miles and a half from Market Rasen. It is six miles from Caistor where the medical officer of health, who acts as medical attendant to the patients, resides.

An acre of land round the hospital is fenced in with unclimbable galvanised iron fencing. The soil is sand upon clay and the site slopes gently to the south. The hospital consists of a wood and iron pavilion erected about 18 years ago, with two wards each for 6 beds. The walls are match-boarded. The building, which is of the usual type of temporary pavilion, contains a nurse's bedroom and duty room, and a disinfecting chamber for fumigating clothing.

Adjoining there is a caretaker's cottage with a kitchen and two bedrooms one of which is damp.

The water supply is from a well and the analysis is said to be satisfactory. The sewage is not treated; the closets are pails. The hospital is connected with the telephone.

This hospital though of a primitive description has been much used, and the Council have recently agreed to accept cases of scarlet fever for isolation from the Grimsby Rural District.

Cases have already been admitted from places distant twenty miles from the hospital. This is too great a distance to remove patients with a horse ambulance.

The Council have prepared plans for an extension of the hospital which have been submitted to the Local Government Board. The Board have directed the District Council to approach the County Council with a view to the incorporation of beds for the treatment of advanced cases of tuberculosis.

This scheme is therefore in abeyance pending the County Council's decision on the whole question of the provision of isolation hospital accommodation for the county.

GAINSBOROUGH RURAL DISTRICT.

The Council's Hospital for small-pox is situated at Morton Carr where they own 16 acres of land. The site is not fenced in. The nature of the soil is sand over peat. It is three miles and a quarter from the Great Northern Railway station at Gainsborough and two miles and a quarter from the Great Central Railway Station. It is 300 yards from a stone road. The land was purchased in 1900 and the building which is a wood and iron pavilion of the usual type of temporary building, with accommodation for eight beds, was erected in 1901. The water supply is only from a galvanised rain water cistern and there is no sewerage. There are two pail closets. An ambulance is kept for the patients and there is a portable steam disinfecter. The hospital suffices for its purpose.

SPILSBY RURAL DISTRICT.

The infectious diseases hospital is made of wood and is portable. It has six beds and is situated in the grounds of the Workhouse. It is not a fit place for use as an isolation hospital.

2. INADEQUACY OF THE HOSPITALS.

From a consideration of the existing isolation hospital accommodation in the County described above, it will be seen that the provision for this purpose is inadequate for the needs of the County as a whole. The existing hospitals are also unsatisfactory chiefly for the following reasons, viz.:—

- (i) Because in them only one disease can be treated at a time.

- (ii) Because there is no provision for cases of doubtful diagnosis or for cases having two diseases concurrently.
- (iii) Because the accommodation for nurses is either insufficient or wholly unsuitable.
- (iv) Because in most of the hospitals there is no permanent nursing staff.
- (v) Because arrangements for the disinfection of infected articles are inadequate.
- (vi) Because proper medical supervision is generally lacking.

3. PROCEDURE FOR THE ESTABLISHMENT OF COUNTY INFECTIOUS DISEASE HOSPITALS.

It is obvious that if each Sanitary Authority were to provide a satisfactory Isolation Hospital the cost would be very great. Efficiency and economy in administration can only be secured by establishing hospitals of sufficient size to serve a considerable area of the county.

Previous to 1913 this could only be done by districts combining or being combined together for this purpose under the Isolation Hospitals Acts of 1893 and 1901, or under Section 131 of the Public Health Act of 1875.

The difficulties to be overcome when all the authorities concerned were not in agreement were such as to discourage the County Council from taking proceedings under the Isolation Hospitals Acts.

Since the passing of the Public Health (Prevention and Treatment of Disease) Act, 1913, however, it is possible for the County Council, itself, to establish hospitals sufficient for the needs of the County.

By Section 2 of the Act "the Local Government Board shall have power to declare that one of the authorities to execute and enforce regulations made by the Board under section one hundred and thirty of the Public Health Act, 1875, with a view to the treatment of persons affected with cholera or any other epidemic, endemic, or infectious disease and preventing the spread of cholera and such other diseases, shall be the Council of a County, and that section shall have effect accordingly as if a County Council were an authority within the meaning of that section."

By Section 4 "any expenses incurred under this Act shall, in the case of a Sanitary Authority be defrayed as part of the expenses incurred by them in the execution of

the Public Health Act, *and in the case of a County Council* as expenses for general county purposes, or, if the Local Government Board by Order so direct, as expenses for special county purposes charged on such part of the county as may be provided by the Order."

4. SUGGESTED HOSPITAL PROVISION FOR THE COUNTY.

In order that the advantages of a hospital which will command public confidence may be obtained, that is to say, a hospital that is well constructed and well administered, with a permanent nursing staff, it is necessary for it to serve a wider area than has previously been customary in this County. This has been rendered possible by modern improvements in means of communication and transport.

Patients can now be taken by motor ambulance twenty miles from their homes as easily as they were previously taken quarter the distance, and by the telephone the relatives can be kept informed of their progress. There is no danger to a patient's condition from transport in a well-sprung motor ambulance. The exact size of the area which an infectious diseases hospital can serve depends mainly on the willingness or otherwise of parents to allow their children to be taken to a distant hospital. This can only be ascertained by experience and the experience of other Counties does not necessarily enable us to fix a limit for the area in this County.

From a study of the geographical situation of the principal centres of population in the County it would appear that the County might not be adequately provided for the isolation of infectious disease with less than four hospitals, that is to say, (*a*) one in the neighbourhood of Gainsborough, (*b*) one near Scunthorpe, (*c*) one at Louth, and (*d*) one in the neighbourhood of Horncastle or Spilsby.

SIZE OF THE HOSPITALS.

Each hospital should occupy a site of at least two acres. The buildings should consist of three ward blocks or pavilions, an administrative block, and out-offices such as laundry, disinfecting station, ambulance house and mortuary. A porter's lodge may be desirable. The ward blocks should provide about 16 beds for scarlet fever, and 10 beds for diphtheria. Each ward block must consist of two wards for the separation of the sexes. Attached to each ward block there should be a couple of single bed wards for the reception

of cases of doubtful diagnosis. Sufficient accommodation should be provided in the administrative block for the maximum number of nurses required in time of epidemic.

In connection with two of the hospitals there should be additional pavilions for advanced cases of tuberculosis. Twenty beds in each of the two hospitals would probably suffice. As a resident Medical Officer should be provided for these hospitals it should be considered whether, both from the point of view of efficiency and economy, it would not be well to establish also in connection with them beds for the sanatorium treatment of early cases of tuberculosis of the lung.

COST OF CONSTRUCTION.

From returns which I have obtained of the cost of construction of existing Isolation Hospitals in England, it appears that the cost of a permanent brick hospital is usually from £300 to £400 a bed. I am informed by Mr. H. G. Gamble, Architect to the Education Committee, that there is no reason to suppose that buildings cannot be erected as cheaply in Lindsey as in any other County. It is therefore reasonable to believe that the inclusive capital cost need not be more than £300 a bed. An architect's estimate when the details have been settled should of course be obtained. It is to be remembered that the Local Government Board have offered a grant equal to three-fifths of the capital expenditure upon the proportion of the hospital reserved for the treatment of tuberculosis. This would include a proportion of the cost of the site, administrative building, laundry block, etc., as well as that of the tuberculosis pavilion.

PROVISION FOR SMALL-POX.

It would be advisable to enter into negotiations to take over two existing wood and iron hospitals from the authorities possessing these. One such hospital in the east of the County and one in the west would suffice for the isolation of small-pox, and a nurse from one of the main isolation hospitals could be sent at a moment's notice to look after small-pox patients.

UTILITY OF ISOLATION HOSPITALS.

A. ORDINARY INFECTIOUS DISEASES.

Wherever satisfactory isolation hospitals have been provided by local authorities it is found that they are year by year increasingly taken advantage of. It is scarcely ever

necessary to remove patients against their own or their parents' inclination, but power is given by section 124 of the Public Health Act, 1875, for compulsory removal in cases where adequate isolation is not obtainable in the patient's house. The timely isolation of a first case of infectious disease often results in there being no further spread. The value of an isolation hospital is also evident for cases occurring in the county, in the family of a milk seller or at a post office, school house, boarding school, hotel or boarding house, or common lodging house.

There are also times when the medical care, good nursing and good food obtainable at a hospital may save the lives of patients who would otherwise have no chance of recovery owing to lack of skilled attendance or proper nourishment. This applies particularly to cases of laryngeal diphtheria.

In the homes of the working class it is found that isolation always presents great difficulties and the householder is generally very willing, where there is a good hospital to take advantage of it and so avoid the prolonged quarantine, exclusion of children from school and troublesome restrictions which are requisite when infectious disease is treated at home.

B. TUBERCULOSIS.

The infection in tuberculosis of the lungs is contained in the patient's sputum. At present early cases amongst the insured population are being sent to sanatoria where they are educated how to dispose of their sputum so as to prevent the spread of infection. When the disease becomes advanced and the patient is bed-ridden, it is often no longer possible for the same strict measures to be taken, and the risk of infection to other members of the family is very great. This is especially the case where the dwelling-houses are small.

The Tuberculosis Dispensary Officers urge very strongly that patients with advanced disease should be removed to a tuberculosis hospital, and we are all of opinion that unless this is done in cases where the infection is great there will be little chance of the County Council's tuberculosis scheme being effective in the stamping out of the disease. If the tuberculosis hospital is on the same site as the hospital for infectious diseases the advantages will be: (1) that the patients will not have to be taken so far from their homes as would be the case if they were treated at a central sanatorium, (2) the efficiency of the infectious diseases hospital

will be increased, as a permanent staff will be required for the treatment of the tuberculosis section of the hospital, (3) advantage can be taken of the grants which are offered by the Local Government Board for the erection of hospitals for tuberculosis, and the cost of the isolation hospitals as a whole will be proportionately reduced.

HOUSING.

The initial steps towards the preparation of a town planning scheme for the port of Immingham have been taken by the Grimsby Rural District Council. That Council is to be congratulated on being the first in the County to seek to take advantage of the powers obtainable under Part II. of the Housing and Town Planning Act in order to secure proper sanitary conditions, amenity and convenience in respect of land in course of development. Schemes should also be prepared for the Ironstone area, which is growing very rapidly, and for Skegness.

In regard to Skegness, Dr. Wallace writes as follows :—

“I would take the opportunity of very strongly recommending to the consideration of the Council Part II. of the Housing Act. In a rapidly growing resort such as Skegness, there is everything to gain for the Authority to plan the future development. Prevention is better than cure. By adopting Part II. of the Housing and Town Planning Act overcrowding and many other evils can be prevented. . . .

. . . The preliminary steps could be taken during this period of stagnation ready for the time when the progress of the town will be even more rapid than before.”

I have urged for some years, without success, that growing towns should have better provision of public gardens. The need for open spaces pleasantly laid out is particularly great in Barton-on-Humber, Gainsborough, and Scunthorpe, where there are rows of houses with no gardens at all and where in consequence children have to play and sick persons to seek restoration of health as best they can in the streets.

My inspections show that there is a scarcity of suitable houses for the working classes in the Urban Districts of Brigg, Crowle and Gainsborough, and in certain parishes in all the Rural Districts. No houses have been provided during the year by any of the District Councils, under Part III. of the Housing Act of 1890. This is not because the need is not recognised. In the Rural Districts the explanation as a rule

is that the principle has been adopted of placing the burden of the rating for this purpose on the parish instead of upon the district. If this principle is adhered to it will mean that practically no houses will be erected by these Rural District Councils to meet the great demand that exists for them. As a consequence a large number of houses that are now quite unfit for habitation will remain habited and be a menace to the health of the County because the Councils naturally hesitate to order closure of dwellings when there is nowhere for the tenants to go to.

There is a likelihood of houses being built by the Councils of the Rural Districts of Glanford Brigg, Caistor and Spilsby. There is, however, even greater need of houses in many parishes of the Horncastle Rural District.

The inspection of houses in the County has made progress during the year, although the number of inspections has varied very greatly in different districts. The actual work done will be found in the Abstracts from the District Reports printed at the end of this report. There appears to be no standard amongst the inspectors as to the minimum hygienic requirements of a dwelling-house. The result is that in one Urban District where 89 houses were inspected it is recorded that 8 were closed and repairs were found necessary and were effected in regard to 81; whereas in another Urban District where 504 houses were inspected there is only a note of 4 closing orders, and of 3 other houses being defective and requiring repair.

No inspections were carried out in the Gainsborough Rural District. In the Urban District the Inspector requires assistance in order that the work of inspection, which is a very pressing matter, may be carried out efficiently. The District Council are not giving the attention that is required to the so-called yards, the slums of Gainsborough, which are not only injurious to the health of the people living in them but a danger also to all the inhabitants of the town.

The findings of the inspections in Rural Districts were shown in 1912 by Dr. Walker, of Spilsby, to be :—

1. That many cottages are occupied which are barely fit for human habitation and which owners would close rather than radically improve if there were others better for the tenants to move into.

2. That there is a want of cottages with three bedrooms, and in consequence of this, overcrowding from time to time occurs, immorality is fostered and infectious disease spread.

3. That labourers have to reside at a distance from their work, causing grave inconvenience and loss of time to them and their employers.

4. That some employers prefer unmarried men or men without families on account of the difficulty of obtaining suitable cottage accommodation. This tends to decrease the birth rate.

5. That unsatisfactory cottages are occupied by families who are able and willing to pay more rent if they could obtain larger or more commodious ones.

WATER SUPPLY.

The Urban Districts, with the exception of Broughton, Crowle and Mablethorpe, have the inestimable advantage of public water supplies available for the inhabitants provided either by the District Councils themselves or by private water companies.

The Councils in all the districts should satisfy themselves that the wells still in use are free from contamination instead of waiting for complaints or for outbreaks of sickness attributable to polluted water. Visits which I have paid to billets occupied by troops in 1914 have demonstrated that there are still District Councils which have not realised that it is their duty to see that every occupied dwelling-house in their District is provided with a sufficient supply of wholesome water. The Urban Districts in which the percentage of houses supplied from a public service is still very small are Alford and Barton-on-Humber.

Public water supplies are required in the interests of public health in Broughton, Crowle and Mablethorpe.

In the Rural Districts public water supplies are still rather exceptional. The Rural District Councils of Caistor, Glanford Brigg and Spilsby take the lead in safeguarding the villages in this respect. Public supplies are more especially required in the Isle of Axholme, in the low-lying fen districts of Louth, Sibsey and Spilsby, and for the villages on the banks of the River Trent. The only important work in connection with water supply reported as having been carried out in 1914 was at Woodhall Spa where the supply was extended to Mill Lane and Kirkstead Station, and at Skendleby Salter, in the Spilsby Rural District, where a bore 150 feet deep was sunk and a reservoir constructed capable of holding 10,000 gallons.

In Horncastle Urban District the public supply was rather short during certain months of the year owing to drought. The supply is obtained from the chalk at Cawkwell, but surface water had to be taken to augment it. Analysis showed that the water remained of good quality.

Last year I reported that the supply for Louth Borough was for a short time contaminated by surface drainage at the Welton Springs. Steps have been taken by the Water Company to introduce a filtration plant.

At Market Rasen the Water Company have obtained new powers which will enable them to supply all the houses of the town. At present the supply is insufficient for the complete flushing of the sewers without affecting the domestic supply. The Company will also be able to supply Middle Rasen and Tealby.

In Winterton, although the public supply has only recently been introduced, there are already 68 per cent. of the houses connected with the mains. Much credit is due to the Sanitary Inspector for this good work.

The Local Government Board have held an inquiry into the need for a public supply to the village of Ulceby in the Glanford Brigg Rural District and have recommended that one should be obtained.

In the Isle of Axholme and in the fen districts of Louth, Sibsey and Spilsby the inhabitants have to rely on rain water for their supply and in times of drought have to drink water from polluted ditches. The people in the Trent side villages drink the river water when their rain water supply gives out. This is grossly contaminated by the untreated sewage of the large towns through which it flows.

RIVERS POLLUTION.

The Rivers Pollution Prevention Acts of 1876 and 1893 are, under Section 14 of the Local Government Act, 1888, to be administered by the County Council. It is not possible for this work to be undertaken without facilities for water analysis. There is no doubt that the provision of such facilities at the County Laboratory would do much to increase the efficiency of County Sanitary Administration.

Very few of the District Medical Officers of Health make any reference to the subject in their annual reports. The Wold Grift Drain at Alford is polluted by the drainage from

pigstys and cowsheds, and by the overflow from the sewage works. The Carr Drain, which flows between Grimsby and Cleethorpes, is full of stagnant water polluted from manured land. Dr. Booth-Milner refers to it as a menace to the public health. The River Lud, at Louth, still receives drainage from houses in the borough. The house drains have not yet been connected with the new sewerage system. The pollution of the Santon Beck, near Scunthorpe, will shortly be remedied.

The stream flowing through the village of Welton-le-Wold, in the Louth Rural District, is polluted by the drainage of the houses. This it is hoped to remedy by alterations to the drainage system.

Dr. Messiter reports that the Stainforth and Keadby Canal, fed by the River Don, is polluted by large towns and populous places in the West Riding.

In the Welton Rural District the Foss Dyke Navigation is polluted by the untreated sewage of the village of Saxilby.

SEWERAGE AND SEWAGE DISPOSAL.

Urban Districts.

The number of Urban Districts reported as not having sewage disposal works has been reduced by two since last year. Scunthorpe and Louth have had their sewage works completed, and the work of coupling up the house drains is being proceeded with. This process is not as rapid as it might be in the borough of Louth. In Cleethorpes the works are nearing completion. They are described in the abstract of the Medical Officer of Health's Report, given in the Appendix to this Report.

The Urban Districts, which are still without public sewerage systems and disposal works are Barton-on-Humber, Broughton, Crowle, Gainsborough, Roxby-cum-Risby, and Winterton. In Barton-on-Humber no action has been taken to give effect to the Engineer's recommendation that the drains should be cut off from tidal influence and that the sewage should be taken out of the Haven and discharged into the Humber.

The Medical Officer of Health recommends that more inspection chambers should be provided to enable flushing to be more effective and that the stream which flows through the Butts Road sewer should not be allowed to do so.

At Broughton there is great need for a complete sewerage system for the populous part of the district, since there is great danger of the water supply, which is derived from wells, being polluted with the present method of disposing of sewage on the gardens. Alternatively a public water supply should be introduced in this district.

Gainsborough discharges its sewage untreated into the Trent.

Roxby-cum-Risby includes the village of Dragonby, which has public drainage. The drains end in a settling tank which is emptied periodically. In Roxby the drains discharge into a ditch.

At Winterton it is proposed to introduce a new sewerage system sectionally over a period of years. During 1914 a length of new sewer, 61 yards long, was laid and inspection chambers were placed at the points of junction with the existing sewers.

The excessive amount of sewage to be dealt with at the Alford disposal works, owing to the access of springs to the sewers still continues. Unpurified sewage has in consequence to be discharged at times into the Wold Grift Drain.

At Horncastle sewer ventilators are being gradually introduced. The sewage farm acted satisfactorily during the year.

No attempt has been made at Market Rasen to improve the sewerage system and sewage disposal works although the Council have had the subject under consideration and have received reports both from the District Medical Officer of Health, Dr. Torrens, and myself. Complaints are made of smells from the manholes. This is caused by the sedimentation of sewage in the sewers and in one or two places by this deposit being continually stirred up by a waterfall of sewage, resulting from the faulty construction of the sewer. The land used for the process of purification is now sewage sick and the effluent pollutes the water course into which it is discharged.

As the Medical Officer of Health says, alterations, additions and enlargements to the sewerage of the town require to be carefully considered and no work undertaken unless it fits in with a scheme which shall be good and sufficient when the water supply and sewerage system have reached their full development.

The town of Scunthorpe has now a well laid main sewer and a modern disposal plant. A small purification system

is still required to deal with the sewage from the outlying village known as Santon Terrace.

Rural Districts.

GLANFORD BRIGG.—Except at Ashby and Crosby the villages drain into ditches. The parishes named have satisfactory sewerage and sewage disposal works.

CAISTOR.—Caistor, North Kelsey and South Kelsey have irrigation areas. The villages and isolated houses in the low country drain principally into land ditches. The villages in the Wold valleys are not generally drained. Cesspools are extensively used.

GRIMSBY.—The system of sewerage which has been adopted for Immingham has been postponed for the duration of the war. The sewage disposal works for Humberstone Avenue have worked well during the year. At Little Coates the drains are connected with the Grimsby sewerage system. Elsewhere in the Rural District the houses drain into cesspools.

HORNCASTLE.—The main sewers at Wragby and Mareham-on-the-Hill were cleaned out and repaired during 1914. No parish has efficient means for the purification of sewage. Many of the village drains have been improved in the year and 41 trapped gullies have been inserted.

ISLE OF AXHOLME.—The sewage is discharged into field ditches. Drainage is extremely primitive in the whole of the district. Even in Epworth the sewage is allowed to flow along the open road channels which are not specially constructed to avoid soakage into the ground.

LOUTH.—The only villages with public sewerage and disposal works are Aby, Binbrook, Ludford, and North Somercotes.

SIBSEY.—No parish in this district has satisfactory sewage disposal works. This is particularly to be regretted as in dry seasons the inhabitants are forced to drink the water from the field drains.

SPILSBY.—62 houses in Spilsby and Hundleby had their drainage connected with the public sewer in 1914. The disposal works are efficient. The Council have not yet taken over the new sewerage system of Sutton-on-Sea. Six sludge beds have been constructed there. The engineers have been asked to report as to whether subsoil water is getting access to the sewers.

The proposal to provide a complete sewerage system for Burgh has been postponed owing to the war. The Surveyor has been asked to submit plans and an estimate for a proper system of sewerage for Wainfleet All Saints.

WELTON.—Except at Bardney and Scothern there is no public sewerage and sewage disposal works. The filters at Bardney are very unsatisfactory. At Scothern purification is effected by land filtration. In the other villages the drains are mostly field pipes. The sewers at Saxilby are badly constructed and the sewage pollutes the Foss Dyke Navigation.

THE DISPOSAL OF EXCREMENT AND HOUSE REFUSE.

Excrement Disposal.

In the towns with a sufficient water supply and a sewer the District Councils are securing with varying rapidity the conversion of the former dry conservancy system of excrement disposal into the water closet system. In most the Councils appear to be content with insisting upon water closets to be supplied in new houses, in a few others every opportunity is taken of dealing with the conservancy system as a nuisance. The majority of the houses have water closets in the Urban Districts of Cleethorpes, Gainsborough, Skegness and Woodhall Spa. It is very desirable that the Urban District Councils which have not previously dealt with the matter energetically should realise the advantage to the public health of the conversion of tub closets and particularly of vaults into water closets.

In the villages the favourite method of excrement disposal is the privy vault. No attempt is made as a rule to add dry earth to the contents and the construction of the vaults is such that percolation into the surrounding soil is favoured. Every such vault is a grave menace to health, and should be condemned as a nuisance without waiting for cases of diarrhoea or enteric fever to arise. I regret to say that many of the public elementary schools in country districts have no better provision.

Pan closets are, generally speaking, the most suitable provision for villages, and they should be emptied regularly by a public scavenger. The process of conversion of privy vaults to pan closets is still far too gradual.

Scavenging of House Refuse.

One of the most important matters to be attended to, to keep the surroundings of houses both in town and country, in a healthful state is the regular removal of house refuse. All waste that can be burnt should be put on the kitchen fire and the remainder into covered galvanised iron dustbins, the contents of which are removed regularly by public scavengers.

Scavenging should be carried out by the Council's own employees directly supervised by the Inspectors of Nuisances. Refuse should be removed at least weekly in Summer and fortnightly in Winter. In Urban Districts a bi-weekly collection is recommended.

The arrangements made in all the Urban and Rural Districts are detailed in the abstracts from the Medical Officers' Annual Reports.

Those in force in Cleethorpes and Gainsborough are very satisfactory. A system of scavenging was introduced into the villages of Scawby and East Halton during 1914. In connection with the billeting of troops arrangements were made wherever scavenging systems were in force for the daily removal of excrement from the billets.

DAIRIES, COWSHEDS, AND MILK SUPPLY.

The powers possessed by District Councils for the control of the business of milk selling in the interests of the public health are derived from the following Statutes, Orders, and Regulations, viz. :—

The Dairies, Cowsheds and Milkshops Orders, 1885, 1886 and 1899.

The Public Health Act, 1875, secs. 91-94 and 116-119.

The Infectious Diseases Prevention Act, 1890, sec. 4 (adoptive).

The Public Health Acts Amendment Act, 1907, secs. 52-54 (adoptive).

By the Dairies, Cowsheds and Milkshops Order of 1885 every cowkeeper, dairyman and purveyor of milk must be registered by the Local Authority, unless he carry on the trade for the purpose only of making or selling butter or cheese. Persons who sell milk from their own cows in small quantities to their workmen or neighbours, are also exempt.

The Local Authority from time to time must advertise in a local newspaper, or by placards, handbills or otherwise, that registration is required, and describe the mode of registration.

The Order provides in Sections 7 and 8 that Dairies and Cowsheds occupied since 1885 must have provision made to the reasonable satisfaction of the local authority in respect of lighting, ventilation, including air space, cleansing, drainage and water supply, so as to provide for (a) the health and good condition of the cattle (b) the cleanliness of milk vessels and (c) the protection of the milk against infection or contamination.

Section 9. A person suffering from a dangerous infectious disorder or having recently been in contact with a person so suffering may not take part or assist in any way in the conduct of the business.

Section 10. It is not lawful to permit a closet or urinal to communicate directly with a dairy or room used as a milk store.

Section 11. A milk store or milk shop may not be used as a sleeping apartment or for any purpose incompatible with the proper preservation of the cleanliness of the milk store or shop and of the milk and milk vessels.

Section 12. Swine may not be kept in a cowshed or milk store.

Section 13. Local Authorities are given power to make regulations for the following purposes.

(a) For the inspection of cattle in dairies.

(b) For prescribing and regulating the lighting, ventilation, cleansing, drainage, and water supply of dairies and cowsheds in the occupation of persons following the trade of cowkeepers or dairymen.

(c) For securing the cleanliness of milkstores, milkshops, and of milk-vessels, used for containing milk for sale by such persons.

(d) For prescribing precautions to be taken by purveyors of milk and persons selling milk by retail against infection or contamination.

The Local Government Board have issued Model Regulations under this Section.

Section 15. If at any time disease exists among the cattle in a dairy or cowshed, or other building or place, the milk of a diseased cow therein :—

- (a) Shall not be mixed with other milk ; and
- (b) Shall not be sold or used for human food ; and
- (c) Shall not be sold or used for food of swine or other animals, unless and until it has been boiled.

By the Order of 1899 disease of the udder certified by a veterinary surgeon to be tubercular is included in the term “disease” used in section 15 of the Order of 1885.

It seems advisable that a regulation not included in the Model Regulations but which has been adopted by many authorities with advantage should be added by the local authorities in this county.

It is to the effect that “Every purveyor of milk or person selling milk by retail, shall cause every vessel containing milk for sale to be kept properly covered, or to be otherwise sufficiently protected from contamination by dust or flies.

The Order of 1886 provided in Article 3 a penalty clause as follows :—

“If any person is guilty of an offence against the Order of 1885 he shall for every such offence be liable to a penalty of five pounds, and in the case of a continuing offence to a further penalty of forty shillings for each day after written notice of the offence from the Local Authority.”

The Public Health Act, 1875, gives power under the Nuisance Sections (Sections 91 to 94) to deal with the structural condition and general sanitation of cowsheds and dairies if they are ‘premises in such a state as to be a nuisance or injurious to health.’

‘Any animal so kept as to be a nuisance or injurious to health’ and ‘any accumulation or deposit which is a nuisance or injurious to health’ may be dealt with under this Act.

The Infectious Diseases Prevention Act which is adoptive provides in section 4 that if the Medical Officer of Health is in possession of evidence that the consumption of milk from a dairy whether situated within or without his district is likely to cause infectious disease to any person in the district, he shall if authorised by a justice have power to inspect the dairy and if accompanied by a veterinary surgeon to inspect the animals therein, and if he is of opinion that infectious disease is caused by consumption of the milk he shall report

to the local authority who may make an order requiring the dairyman not to supply milk in the district until the order is withdrawn.

The Public Health Acts Amendment Act, 1907, in section 52 makes it illegal for any person who knows that he is suffering from an infectious disease to carry on any trade unless he can do so without risk of spreading the disease.

By section 53, if the Medical Officer certifies to the local authority that infectious disease is being spread by milk, the local authority may require the dairyman to furnish to the Medical Officer a complete list of all the farms, dairies or places from which his supply of milk is derived.

Section 54 requires every dairyman to notify to the Medical Officer cases of infectious disease among persons engaged in connection with the dairy. The act is adoptive and the above sections have to be applied to a district adopting the act, by an order of the Local Government Board.

From a consideration of these Acts and Orders by which the milk trade may be regulated, it is evident that the local authorities have considerable powers of control over the production, distribution and storage of milk.

There is still much to be desired throughout the County in regard to the cleanliness of dairy cattle, their freedom from tuberculosis and the hygienic construction of cowsheds.

This is essentially a stock-raising County and the milk supply for the inhabitants, especially of the Rural Districts, is very scarce indeed. The people do not properly realise the importance of milk as a food or else some solution would be found for the deficiency.

SANITARY CONDITION OF PREMISES WHERE FOOD IS PREPARED.

BAKEHOUSES.

Bakehouses where no mechanical power is used come under the heading of workshops within the meaning of the Factories and Workshops Act, 1901. The sanitary provisions of that Act have to be enforced in regard to them by the Local Authorities.

The reports show that the inspections of bakehouses which are carried out vary from once a year to once a month in

different districts. Where possible they should be visited at least once a quarter. In Rural Districts they should be inspected at least twice in each year.

There are only two underground bakehouses in the County, both in the Horncastle Urban District.

In the Grimsby Rural District it has been found that two bakers bake bread for sale in the kitchens of their houses. This should not be allowed.

The majority of the bakehouses are reported as being satisfactory premises. Where defects were found they were chiefly failure to limewash the walls. In the Horncastle Urban District the Medical Officer of Health reports that bakehouse floors require repair.

SLAUGHTER - HOUSES.

Bye-laws for the regulation of slaughter-houses are required in the Urban Districts of Barton-on-Humber, Broughton and Market Rasen. It should be pointed out to the Councils of these districts that it is obligatory for Urban Authorities to make bye-laws for the licensing, registering and inspection of slaughter-houses and knackers' yards and for preventing cruelty therein and for keeping the same in a cleanly and proper state and for removing filth at least once every twenty-four hours, and requiring them to be provided with a sufficient supply of water. In the Rural Districts bye-laws are adoptive. They are in force in the Rural Districts of Gainsborough, Horncastle, Isle of Axholme, and in certain parishes in Spilsby. It is very desirable that all Rural District Councils should take an early opportunity of obtaining bye-laws for the proper regulation of these premises.

UN SOUND FOOD.

The County Council have so far not found it possible to arrange for the instruction of inspectors of nuisances in meat inspection.

The matter is of great importance to the public health and at present it is very unequally carried out.

In most of the larger Urban Districts the Inspectors of Nuisances are trained men, and the inspection is as efficient

as it can be in the absence of public slaughter-houses, but in the Rural Districts there is ample opportunity for the slaughtering of unsound animals, and for the preparation of their carcasses for sale. The perfect remedy would be for legislation to be passed making the provision of public slaughter-houses compulsory both in Urban and Rural Districts and requiring that no animals should be slaughtered except in these abattoirs.

In the Rural Districts at the present time unsound food is only detected by accident, the inspector happening to visit a private slaughter-house when an unsound animal is being killed.

In Gainsborough Urban District the Inspector attends the Cattle Market regularly and follows up cases where unsatisfactory animals are sold. Neighbouring Local Authorities are notified when unsound animals are sold to go out of the district.

The unsound food seized or surrendered in each district is reported in the abstracts from the Medical Officers' Annual Reports.

ADOPTIVE ACTS AND BYE-LAWS.

The following table gives particulars of the Adoptive Acts and Bye-laws in force in Urban and Rural Districts in the County.

ADOPTIVE ACTS.

District.	Public Health Acts Amendment Act, 1890. Part iii.	Public Health Acts Amendment Act, 1907.	Infectious Diseases (Prevention) Act, 1890.	Cleansing of Persons Act, 1897.	Private Street Works Act, 1892.	Notification of Births Act, 1907.
<i>Urban.</i>						
Alford	Yes	Parts, Yes.	Yes	—	Yes	—
Barton-on-Humber ...	Yes	Parts, Yes	...	...	Yes	...
Brigg	Yes	Yes	Yes	—	Yes	—
Broughton	—	—	Yes	—	—	—
Brumby and Frodingham	Yes	Yes	Yes	—	Yes	Yes
Cleethorpes	Yes	Yes	Yes	—	Yes	—
Crowle	—	—	—	—	—	Yes
Gainsborough	Yes	Yes	Yes	—	Yes	—
Horncastle	Yes	Parts, Yes	Yes	...	...	...
Louth	Yes	...	Yes	—	Yes	—
Mablethorpe	—	—	—	—	Yes	—
Market Rasen ... ..	...	...	...	...	...	...
Roxby-c-Risby	—	—	—	—	—	—
Scunthorpe	Yes	Yes	—	—	Yes	—
Skegness	Yes	Yes	Yes	—	Yes	—
Winterton	Yes	...	...	...	...	...
Woodhall Spa	Yes	Yes	Yes	—	Yes	—
<i>Rural.</i>						
Glanford Brigg	Yes	...	Yes	...	Yes	...
Caistor	Yes	Yes	Yes	—	—	—
Gainsborough	Yes	Yes	Yes	—	—	—
Grimsby	Yes	Yes	Yes	...	—	—
Horncastle	Yes	Yes	Yes	—	—	—
Isle of Axholme... ..	Yes	Yes	Yes	—	—	—
Louth	Yes	—	Yes	—	—	—
Sibsey ... ..	...	Yes	Yes	—	—	—
Spilsby	—	Yes	Yes	—	—	—
Welton	—	—	Yes	...	...	...

BYE-LAWS.

District.	Scavenging and Cleansing. P.H.A. 1875, s. 44.	Prevention of Nuisances. P.H.A. 1875, s. 44.	Regulation of Common Lodging Houses. P.H.A. 1875, s. 80.	Regulation of Houses let in Lodgings. P.H.A. 1875, s. 90.	Regulation of Offensive Trades. P.H.A. 1875, s. 113.	Management of Mortuaries. P.H.A. 1875, s. 141.	New Streets and Buildings. P.H.A. 1875, s. 157.	Regulation of Slaughter-houses. P.H.A. 1875, s. 169.	Scavenging and Cleansing. P.H.A.A. 1890, s. 26.	Regulation of Public Sanitary Conveniences. P.H.A.A. 1890, s. 20.	New Streets and Buildings. P.H.A.A. 1890, s. 23.	Tents, Vans, Sheds, &c. H.W.C.A. 1885, s. 9.
<i>Urban.</i>												
Alford	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Barton-on-Humber	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Brigg	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Broughton	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Brumby and Frodingham	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Cleethorpes	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Crowle	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Gainsborough	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Horncastle	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Louth	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Mablethorpe	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Market Rasen	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Roxby-c-Risby	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Scunthorpe	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Skegness	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Winterton	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Woodhall Spa	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
<i>Rural.</i>												
Glanford Brigg	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Gaistor	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Gainsborough	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Grimsby	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Horncastle	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Isle of Axholme	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Louth	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Sibsey	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Spilsby	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...
Welton	Yes	...	...	...	Yes	Yes	Yes	...	Yes	...

* Undertaken by Local Authority.

† Powers included in New Building Bye-Laws, 1904, and Cleethorpes Improvement Act, 1902.

+ Are being framed.

§ Council provided their own Mortuary, 1907.

NUISANCES AND GENERAL SANITATION.

TABLES SHOWING THE WORK DONE THROUGH-
OUT THE COUNTY IN 1914, IN REGARD
TO GENERAL SANITATION AND THE
MITIGATION OF NUISANCES, COMPILED
FROM RETURNS PREPARED BY THE
INSPECTORS OF NUISANCES.

I.									II.			
ALL INSPECTIONS MADE.									ALL NOTICES ISSUED.			
DISTRICT.	No. of premises inspected on complaint.	No. of premises inspected in connection with Infectious Diseases.	No. of premises inspected under periodical inspection all classes.	No. of premises inspected from house to house (Housing Acts).	Total number of inspections and re-inspections.	Cautionary or Intimation Notices given.	Matters remedied as result of intimation.	Statutory Notices or Orders issued.	Matters remedied as result of Statutory Notice.			
URBAN—												
Alford §	10	6	...	79	95	1	1	1	1			
Barton-on-Humber	32	9	150	53	500	73	None					
Brigg ... ..	...	...	...	No report		received.			
Broughton ... ..	...	...	...	No report		received.			
Brumby and Frodingham ... ..	...	...	...	No report		received.			
Cleethorpes-with-Thrunscoe	300	276	1379	159	11084	854	2109	96	383			
Crowle	6	2	520	124	128	16	10	1	1			
Gainsborough	48	200	1214	139	1812	307	...	7	7			
Horncastle	9	29	99	102	342	12	12	34	21			
Louth (Borough)	7	13	40	218	374	2	2	129	112			
Mablethorpe	11	...	...	...	...	11	11	...	...	
Market Rasen	10	23	117	25	350	42	35	...	...	
Roxby-cum-Risby ... ..	...	...	169	118	287	None				
Scunthorpe	6	...	93	504	5969	758	623	135	84			
Skegness	29	13	301	41	881	63	68	9	19			
Winterton ... ..	...	...	...	No report		received.			
Woodhall Spa	2	13	41	33	218	31	31	...	...	
RURAL—												
Glanford Brigg ... ..	...	...	...	No report		received.			
Caistor	None	2527	480	3007	...	...	105	93		
Gainsborough ... ..	...	...	...	No report		received.			
Grimsby... ..	...	136	904	55	1307	334	489	2	5		
Horncastle	15	20	2100	550	2685	162	...	...	100	
Isle-of-Axholme	13	12	392	112	437	120	114	2	2			
Louth ... ..	...	76	...	314	390	120	323	7	7		
Sibsey	6	4	112	17	139	Nil		7	9			
Spilsby	15	24	926	495	2424	89	99	382	778			
Welton ... ..	...	15	570	349	934	36	32	2	1		

§ This report is for the period from October 30th to December 31st, 1914.

ALL NOTICES— continued.		DWELLING-HOUSES.											
Summonses served	Convictions obtained	No. of representations made to Local Author- ity	Houses, premises, etc., cleansed, repaired, etc., without closure	Closed as unfit for habi- tation—	(a) As result of action under Housing of Working Classes Act	(b) Otherwise	Re-opened after repairs, alterations, &c.	Demolished	No. of Houses unfit but still occupied	Is there any scarcity of Houses, and where?	Any cases of Overcrowd- ing?	No. of New Houses built during the year	Any working-class Dwell- ings erected by the S.A.?
...	...	1	16	...	...	...	...	...	...	Yes	1	...	...
...	48	5	5	...	...	...	...	No	...	5	No
...
...
...
...	...	3	703	...	...	...	...	...	3	No	No	152	No
...	...	14	10	1	1	...	...	...	...	Yes	...	3	...
...	59	...
Nil	...	14	5	...	...	...	5	...	...	No	No bad Cases	...	...
...	63	...	9	Nil	4	Nil	...	...	...	...	...
...	Nil	...	...	...	...	...	...	No	No	20	No
...	Nil	...	...	...	...	...	...	...
...	3	...
4	4	135	3	1	...	1	3	...	...	...	...	57	...
Nil	...	7	6	...	...	1	Nil	1	Nil	Yes	1	34	No
...
...	...	1	4	...	1	...	...	...	...	No	...	3	2
...
...	1	13	7	...	3	...	1	1	1	† Yes	2	12	No
...
...	...	42	27	...	...	3	...	...	...	...	...	84	...
...	...	100	75	13	4	9	16	1	...	Yes	5	18	...
...	84	1	...	...	1	...	...	...	...	...	...
...	...	3	66	...	2	...	5	2	4	...	...	21	...
Nil	...	None	3	...	Nil	...	...	1	Nil	...	...	2	No
...	...	9	286	...	9	...	...	2	8	* Yes	Yes	29	No
Nil	...	39	32	...	1	...	Nil	2	2	Wickenby & Holton	5	6	No

* Midville, Eastville and Wainfleet All Saints.

† Keelby, Brocklesby, Clixby, Grasby, Rothwell, Swinhope, Middle Rasen and Caistor.

IV.								V.				
COMMON LODGING-HOUSES.								CANAL BOATS USED AS DWELLING-HOUSES.				
DISTRICT.	No. registered under by-laws		No. of Inspections made	No. of contraventions of by-laws		No. of contraventions remedied		No. registered under Acts	No. of Inspections	No. of contraventions of regulations		No. of contraventions remedied
URBAN—												
Alford...
Barton-on-Humber...
Brigg
Broughton
Brumby and Frodingham...
Cleethorpes-with-Thrunscoe			None						None			
Crowle	2	16	...	...	...	...	...	34	...	...	...
Gainsborough	26	4	...	...
Horncastle	1	...	...	...	...	...	...	Nil			
Louth (Borough)	Nil	2	Nil	...	...	...	...	Nil			
Mablethorpe	Nil						Nil			
Market Rasen	1	5	None						Nil		
Roxby-cum-Risby	None						None			
Scunthorpe	1	14	...	...	...	...	...	...	...	...	...
Skegness	1	8	2	2	...	...	...	Nil			
Winterton
Woodhall Spa	Nil						Nil			
RURAL—												
Glanford Brigg
Caistor	1	10	...	...	...	...	...	...	...	...	...
Gainsborough
Grimsby	None in District					...	27	15	15	
Horncastle	1	6	1	1	...	...	...	...	...	...	...
Isle-of-Axholme	1	4	...	...	...	...	...	43	9	9	
Louth...	None						...	4	...	...
Sibsey...	Nil						Nil			
Spilsby	Nil						Nil			
Welton	Nil						Nil	13	Nil	

VI.			VII.	VIII.					IX.				
MOVEABLE DWELLINGS, TENTS, VANS, ETC.			No. of Factories	BAKEHOUSES.					SLAUGHTER-HOUSES.				
No. inspected during year	No. of nuisances therefrom abated	No. removed from district		No. in district	No. of underground bakehouses	No. of Inspections	Contraventions of Factory Acts	Defects remedied	No. on register	No. of Inspections	Frequency of Inspections	Contraventions of laws	Defects remedied
...	...	...		7		12	...	...	5	10	Indiscriminate. No regular times.	1	1
1	...	1		6	Frequent		Minor defects remedied		6	Frequent	...	...	Floors, gullies, etc.
...
...
...
43	None	39		24	None	58	None	None	8	212	Weekly and Casually Monthly	3	3
...	...	...		5	...	22	...	...	7	36	Monthly	...	...
...	...	..		14	..	Frequent	Several	All	20	Frequently	...	...	...
	Nil			12	2	17	4	4	8	48	Bi-monthly	5	5
	Nil			15	..	...	1	1	17	16	No fixed period	Nil	Nil
1	...	...		3	...	12	...	...	2	44	Weekly during season	Nil	
4	...	4		6	...	36	2	2	5	60	Monthly	4	4
	None	...				None					None		
26	1	...		11	...	26	...	...	4	388	Bi-Weekly	...	1
42	12	All but five		6	Nil	33	Nil	6	4	31	Frequently	1	1
...
	Nil			3	...	12	...	8	1	6	...	...	...
...
2	...	All		6	...	15	...	...	...	35	Frequently	...	3
...
6	...	...		7	...	28	6	6	6	44	Frequently	...	5
...	...	...		23	...	40	3	3	16	Frequently	...	...	...
12	None	12		2	...	...	...	...	12	22	Irregular	3	3
3	...	...		14	...	28	3	3	12	...	Quarterly	...	...
	Nil			5	Nil	10		Nil	2	8	Quarterly	Nil	
	Nil			44	...	46	5	5	29	40	Yearly	5	5
26	Nil			14	...	31	6	6	11	31	Periodically	None	

COWSHEDS.

DISTRICT	No. on Register	No. of Inspections	Frequency of Inspections	Contraventions of regulations	Contraventions remedied	No. of Milch Cows in District	What arrangements for Veterinary Inspection of Cows
URBAN—							
Alford	13	15	Frequently	2	2	50	None
Barton-on-Humber...	28	...	Frequently	...	...	...	..
Brigg ... ..	...	...	...	...	...	...	...
Broughton ... ..	...	...	...	...	...	...	...
Brumby and Frodingham...	...	...	...	...	...	...	...
Cleethorpes-with-Thrunscoc	1	6	...	None	None	32	None
Crowle	25	76	Every 2 Months	...	...	6	...
Gainsborough	16	...	Frequently	...	...	72	...
Horncastle	8	8	Yearly	...	...	23	None
Louth (Borough)	24	22	No fixed Period	5	3	180	...
Mablethorpe	10	10	Yearly		Nil		
Market Rasen	9	18	Half-Yearly	2	2	24	None
Roxby-cum-Risby	3	12	Monthly	...	...	80	...
Scunthorpe ... ..	...	...	...	...	...	...	...
Skegness	9	75	Frequently	6	6	118	None
Winterton ... ..	...	...	...	...	...	...	...
Woodhall Spa	2	8	...	...	...	9	...
RURAL—							
Glanford Brigg ... ..	...	...	...	...	...	...	...
Caistor	59	55	Frequently	Many Dirty Cows	...	About 345	None
Gainsborough ... ..	...	...	...	...	...	...	...
Grimsby	94	153	Half-Yearly	34	35	908	...
Horncastle	31	Several Times	...	3	3	110 App.	None
Isle-of-Axholme	9	9	Yearly	...	...	32	...
Louth... ..	10	18	Half-Yearly	...	...	42	...
Sibsey... ..	22	44	Half-Yearly	Nil		93	None
Spilsby	74	76	Yearly	12	12	414	No
Welton	37	85	Periodically	Nil		500	None

DAIRIES AND MILKSHOPS.

UNSOUND FOOD.

OFFENSIVE TRADES.

No. on Register.	No. of Inspections.	Frequency of Inspections.	Contraventions of regulations.	Contraventions remedied.	Any instance of disease attributed to milk during the year.	(a) Animals seized.	(b) Articles seized.	Condemned by Magistrate (a)	Condemned by Magistrate (b)	Articles surrendered.	No. of premises in district.	No of inspections.	Contraventions of by-laws.	Contraventions remedied
...	...	...	...	...	...	...	...	...	...	...	2	4	...	...
...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...
...
...
84	88	Yearly and Casually	...	None	...	...	...	...	Quantities of unsound Food	...	1	4	None	None
21	76	Every two months	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	10	...	1	...	6	...	1	...
9	9	Yearly	...	...	None	...	...	...	...	...	2	8	2	2
2	2	No fixed period	...	Nil	...	...	...	Nil	...	...	4	2	Nil	Nil
...	...	Nil	...	...	...	Nil	2	...	2	14	...	Nil	...	...
9	18	Half-Yearly	...	None	...	...	10	...	...	10	2	6	No Bye laws	...
...	...	None	...	...	...	...	...	None	...	...	...	None	...	...
11	...	Frequently	...	...	...	...	13	...	1	13	...	...	...	...
12	25	Frequently	Nil	...	No	...	Nil	...	...	15	...	Nil	...	...
...
4	16	...	...	...	No	...	...	Nil	...	...	...	Nil	...	...
...
...	...	None	...	...	...	...	...	Nil	...	...	...	Nil	...	...
...
None but 5 purveyors of milk who are not cow-keepers	...	...	...	...	No	2	...	2	...	2½ cwt. fish	3	10	No Bye-laws in force but a good deal of alteration has been done. (See written report)	...
...	...	...	...	...	...	...	...	...	...	...	3	4	...	...
...	...	None	...	...	...	...	...	...	...	...	1	Inspected by Special L.G.B. Insp'r	...	...
10	18	Half-Yearly	...	...	...	...	...	Nil	...	...	6	18	...	...
...	...	Nil	...	...	...	...	...	Nil	...	...	...	Nil	...	...
74	76	Yearly	...	...	No	...	...	Nil	...	...	1	1	...	...
...	...	Nil	...	...	...	Nil	2	2	...	2	2	3	...	...

WATER SUPPLY.

DISTRICT.	Wells			Public Supply			
	New Sunk	Cleansed, repaired	Closed as polluted	Area supplied	Percentage of houses supplied	New cisterns provided	Cisterns cleansed, repaired, covered, &c.
URBAN—							
Alford ... ..	...	1	...	*About 2 miles	8·35	...	...
Barton-on-Humber ... ..	...	...	...	...	40	...	...
Brigg ... ..	...	...	...	...	...	...	...
Broughton ... ..	...	...	...	...	...	...	...
Brumby and Frodingham ... ..	...	...	...	...	...	...	...
Cleethorpes-with-Thrunscoe...		None		Whole district except 12 outlying houses		None	
Crowle	1	...	...	...	...	3	...
Gainsborough ... ..	...	...	...	...	...	...	...
Horncastle ... ..	...	...	...	Whole town except outlying houses	93·02	...	...
Louth (Borough)	Nil	1	1	...	About 60	Not known	
Mablethorpe	5	1	Nil		Nil		
Market Rasen ... ..	...	...	1	Whole town	95	...	...
Roxby-cum-Risby ... ..	...	...	...	Roxby-with-Dragonby	45·76	None	...
Scunthorpe	6 at Guinness	...	...	Guinness	68·3	...	...
Skegness	1	Nil	4	Practically the whole district	98·34	...	...
Winterton ... ..	...	...	...	...	...	...	...
Woodhall Spa	Nil	Nil	2	600 acres	85	...	...
RURAL—							
Glanford Brigg ... ..	...	...	...	...	...	...	...
Caistor	None	...	None	§	80	No	...
Gainsborough ... ..	...	...	...	...	...	...	...
Grimsby... ..	1	1	1	Immingham, Little Coates and Scartho	...	...	...
Horncastle	9	14	...	...	...	10	4
Isle-of-Axholme	2	4	...	†	General water supply is obtained from the storage of rain-water in underground cisterns or tanks and tubs.		
Louth	3	5	...	...	
Sibsey		Nil		159 houses use it from the Boston Water Co's Main	...	...	...
Spilsby	10	7	...	§	66	67	...
Welton	5	6	...	Bardney, Langworth, Burton, South and North Carlton.	...	...	...

* Only the Main Road and a small length of other Road has a Water Main.

† Public Pumps at Epworth (2), Belton (2), Wroot (1), Althorpe (1), Luddington (1), Eastoft (1) and Garthorpe (1).

§ Spilsby, Hundleby, Sutton-on-Sea, Wainfleet All Saints, and parts of Burgh-le-Marsh, Welton Winthorpe and Candlesby

WATER SUPPLY—continued				CLOSETS.							DRAINS.		
No. of samples obtained for Analysis	(a) From well	(b) From public supply	Any insufficiency and where	No. of houses with privy vaults in district	No. of houses with pail closets in district	No. of pail closets substituted for privy vaults	No. of pail closets repaired	No. of houses with water closets in district	No. of water closets substituted for dry receptacles	No. of water closets repaired	Drains examined, tested, exposed, &c.	Drains unstopped, repaired, trapped, &c.	Waste pipes, rain water pipes disconnected, repaired, &c.
...	3	...	...	279	240	...	2	61	1	...	4	6	...
...	...	...	...	400	951	5	21	300	5	...	...	36	...
...
...
...
...	...	2	No	None	32	None	...	5572	1	153	25	257	121
...	None	recorded	...	Cannot say	55	5	...	Cannot say	...	...	1	relaid	...
...	...	...	...	...	...	...	...	...	4	11	...	89	9
...	...	2	4½ months whole district	248	29	4	...	719	15	...	10	6	...
...	7	6	...	5	...	Nil.	Not known	...	52	Not known	37	33	3
...	Nil	...	No	62	230	Nil	...	192	Nil	...	6	...	...
...	1	...	...	140	...	8	4	180	10	2	12	6	...
...	...	...	...	57	61	7	...	1	...	...	...	3	...
...	...	...	Gunness	...	1844	...	98	592	11	1	74	49	12
...	1	...	No	16	12	2	3	All except outlying houses and farms	2	...	103	20	4
...
...	3	1	No	31	35	2	4	310	8	6	15	7	3
...
...	1	...	||	Not Many	No record	No record	No record.	No record	Several	Not known	24	No record	No record
...
...	19	...	...	...	...	5	20 new ones provided	Little Coates, Healing & Scartho	...	10	...	71	...
...	...	...	...	...	...	...	18	...	...	...	50	116	27
...	4	...	...	70%	...	3	...	10	...	...	28	20	7
15	...	...	...	1738	718	16	12	175	...	2	...	50	8
...	Nil	...	...	Most of them	4	4	Nil	7	Nil	...	...	Nil	...
...	30	2	‡ Yes	...	...	128	19	...	74	16	193	79	8
...	7	...	Apley	...	...	5	...	...	...	...	...	...	16

‡ Fen Parishes and parts of Wainfleet St. Mary.

§ Brocklesby, Caistor, Claxby, Halton, Kirmond, Limber, Moortown, Nettleton, Somerby, and part of Walesby and Tealby.

|| Grasby, Searby, Middle Rasen, North Kelsey Moor, Swallow, Normanby, South Kelsey, Osgodby, Thornton.

DRAINS.—continued.							SEWERS.
DISTRICT.	New soil pipes or ventilating shafts fixed.			Existing soil pipes or ventilating shafts repaired.		Drains reconstructed.	New lengths of sewer laid.
URBAN—							
Alford	100 yards Holydyke—extension
Barton-on-Humber	470 yards. Marsh lane—new sewer and connections
Brigg
Broughton
Brumby and Frodingham
Cleethorpes-with-Thrunscoe	6	13	3	New system of sewers and tanks for whole district is being carried out
Crowle	1 (90 yds. relaid)	None.
Gainsborough
Horncastle	4	...	4	...
Louth (Borough)	20	4	3	100 yards.
Mablethorpe	Nil.	...	1,200 feet.
Market Rasen	Nil.	...	None.
Roxby-cum-Risby	None.
Scunthorpe	57	...	1	3
Skegness	2	3	1	1,415 yards.
Winterton
Woodhall Spa	3	2	2	833 yards.
RURAL—							
Glanford Brigg	No	...	...	...
Caistor	Record	4	30	330 yards of 9 in. and 80 yards of 6 in.
Gainsborough
Grimsby	9	1
Horncastle	8	...	...	...
Isle-of-Axholme	1	...	6	85 yds 9in. Althorpe, 12 yds 6in. Garthorpe
Louth	2	...	26	...
Sibsey	Nil.
Spilsby	35	7	109	...
Welton	4	Nil.

XVIII.		XIX.			XX.		
TANKS, FILTER BEDS, &c.		CESSPOOLS.			DISINFECTION.		
Alterations to sewage disposal works.	Any inadequacy of sewage disposal works or complaints as to smells.	Cesspools rendered impervious.	Cesspools emptied, cleansed, &c.	Cesspools abolished.	Rooms disinfected.	(a) Ordinary infectious disease.	(b) Tuberculosis.
New method of distribution on to Beds and alteration to Pumping House.		...	...	...	...	5	4
...	...	...	...	...	...	11	2
...
...
...
...	...	None.	1	None.	...	87	47
None.	...	...	6	...	...	5	1
...	...	...	...	...	...	185	...
...	...	...	...	...	...	26	3
New disposal wks. completed.	...	Nil.	5	Nil.	...	14	8
Two Acres of Land extra ploughed up for filtering area.	Nil.	...	4	...	...	7	5
...	Smells from manholes.	...	8	...	...	42	4
...	...	...	1	...	...	None.	...
3 New Filters at Dawes Lane, Santon Terrace & Guinness.	...	...	...	...	...	17	3
Half of the clinker filtering media in one bed has been taken out and replaced with granite.	Further extensions postponed owing to the war,	...	...	2	...	21	12
...
Filt'r'g medium washed.	Yes. No complaints <i>re</i> smells	...	5	5	...	14	1
None.	None.	None.	36	None.	...	16	8
...
...	...	...	2	1	...	55 (3 Schools)	...
...	...	95	58	4	...	27	6
...	...	...	11	...	...	13	6
...	...	...	3	...	...	22	6
Nil.	...	...	Nil.	...	...	9	...
Sludge beds constructed at Sutton-on-Sea, Burgh-le-Marsh.	Wainfleet All Saints and	11	15	30	...	38	13
...	...	Nil.	50	Nil.	...	15	Nil.

DISINFECTION— continued.									HOUSE REFUSE.			
DISTRICT.	Rooms stripped and cleansed	Articles disinfected or destroyed	(a) Ordinary infectious disease	(b) Tuberculosis	No. of covered ashpits	No. of uncovered ashpits	No. of bins substituted for ashpits	No. of houses using bins				
URBAN—												
Alford	2	Public Vehicle 23	...	3	30	250	1	23				
Barton-on-Humber ... ..	...	...	...	...	...	...	...	...
Brigg ... ..	...	...	...	...	...	...	...	...
Broughton ... ..	...	...	...	...	...	...	...	...
Brumby and Frodingham ... ..	...	...	...	...	...	...	...	...
Cleethorpes-with-Thrunscoe...	19	...	1272	405	85	21	1	5498				
Crowle	1	All	5	1	No record	No record	None	None				
Gainsborough ... ..	...	...	1183	...	...	...	...	...
Horncastle ... ..	...	...	All clothing at Hospital	...	48	170	...	76		
Louth (Borough)	17	*	Nil	Nil	219	Nil	4	2407				
Mablethorpe	12	All articles in room	...	...	12	6	...	420		
Market Rasen ... ..	...	...	60	24	120	20	20	300		
Roxby-cum-Risby ... ..	...	...	None	...	...	...	...	...
Scunthorpe ... ..	...	...	...	4 Mat- tresses	...	...	...	2309
Skegness ... ..	...	...	...	...	45	16	5	863
Winterton ... ..	...	...	...	...	...	...	...	...
Woodhall Spa ... ..	...	...	...	...	40	...	5	135
RURAL—												
Glanford Brigg ... ..	...	...	...	...	...	...	...	...
Caistor	None	Bedding and clothes in infected rooms	...	...	Not known	Not known	...	12		
Gainsborough ... ..	...	...	...	...	...	...	...	...
Grimsby... ..	...	...	...	...	...	...	...	Healing, Scartho, Immingham & Little Coates.
Horncastle ... ..	...	...	...	...	...	...	8	...
Isle-of-Axholme ... ..	...	...	...	...	70%	30%	...	...		
Louth	12	...	...	...	...	...	...	...
Sibsey ... ..	...	...	Nil	...	...	...	...	...
Spilsby ... ..	...	...	19	...	13	...	221	...		
Welton ... ..	...	...	...	...	...	...	5	...

* 2237 blankets and 279 articles of wearing apparel have been disinfected for the Military Authorities. Disinfectants have also been supplied to the buildings where troops have been billeted.

HOUSE REFUSE—continued.

HOUSE REFUSE—continued.						NUISANCES REPORTED.
Is refuse removed by householders or by public scavenger?	How frequently is refuse removed from each house?	No. of complaints of non-removal.	Method of final disposal.		Are existing arrangements for refuse removal satisfactory?	Total No. of Nuisances reported during year.
Public Scavenger	When required	10	...		Yes, considering the extra work caused by Military	From Oct 25 to Dec 31 37
Scavenger	Fortnightly & Monthly	29	Conservancy		System not good	150
...
...
...
Local Authority	Weekly and Bi-weekly	33	Destructor		Yes	96
Scavenger	Every 3 months	None	Carted on to the land		Yes	4
Scavengers	Weekly		Destructor		...	...
Public Scavenger	Fortnightly	Nil	Sold to Farmers and Market Gardeners		Fairly so	14
‡ Pub. Scavenger	Fortnightly, Oct. to May Weekly, June to Oct.	17	A Depot on outskirts of Borough and sold to Farmers and Market Gardeners		...	...
Public Scavenger	Weekly	6	Burnt or buried		Yes	9
Scavenger	Fortnightly	4	Shot into old brick pits		...	...
34 at Dragonby by Public Scavenger, remainder by householders	Weekly	3	On land		Yes	None
Public Scavenger	Weekly	2	Tipping		No	617
Local Authority	Weekly	13	Refuse Destructor		Yes	31
...
Scavenger in Urban part and householders in Rural	Urban part Twice weekly	2	Burnt at Sewage Farm		Yes	...
...
Scavenger at Caistor, North Kelsey & Keelby	As required	None	On land		Might well be extended	251
...
Immingham and Little Coates	Weekly	20	Land fertilising		Yes	494
...	...	...	...		...	212
Householders	As often as necessary	15	Generally on the fields or in the gardens		...	...
Householder	...	...	...		...	330
Householders	When required	None	Put on land		...	...
Scavenger at Spilsby, Sutton, Hogsthorpe, Winthorpe and Wainfleet All Saints	When required	15	On land		Yes	1492
Scavenger at Saxilby and Nettleham	Weekly	4	To fields		Yes	30

‡ In addition some 50 additional latrines have been cleansed and emptied nightly since August for the Military Authorities.

NUISANCES ABATED.

DISTRICT.					Overcrowding.	Smoke.	Accumulations of refuse.	Foul ditches, ponds and stagnant water.	Foul pigs and other animals.	Dampness.	Yards re-paved or repaired.	Other nuisances.
URBAN—												
Alford	...	...	...	...	1	...	12	...	2	...	2	1
Barton-on-Humber	..	...	...	...	...	...	7	4	...	...	Included in repairs under Housing Act, 1909.	...
Brigg	...	...	...	...	...	...	...	...	...	...		...
Broughton	...	...	...	...	...	...	...	...	...	...	...	...
Brumby and Frodingham	...	...	...	...	...	...	...	...	...	...	...	...
Cleethorpes-with-Thrunscoe	...	...	...	None	4	14	...	...	121	120	320	1630
Crowle	...	...	...	...	...	...	1	1	1	...	...	1
Gainsborough	...	...	...	...	...	...	...	...	...	...	...	...
Horncastle	...	...	...	...	...	...	...	...	2	...	...	12
Louth (Borough)	...	...	Nil	1	4	1	Nil	1	5	28		
Mablethorpe	...	...	Nil	1	6				Nil			
Market Rasen	...	...	...	...	...	4	...	6	...	4	...	...
Roxby-cum-Risby	...	...	...					None			16	...
Scunthorpe	...	...	2	...	9	...	1	78	103	403		
Skegness	...	...	1	...	8	...	1	4	...	53		
Winterton	...	...	...	...	...	...	...	...	...	...	...	...
Woodhall Spa	...	...	...	1	5	...	2	4	...	9		
RURAL—												
Glanford Brigg	...	...	...	...	...	...	...	...	...	...	...	...
Caistor	...	...	2	...	No record	19	5	Necessity for action by R.D.C.	21	...		
Gainsborough	...	...	...	...	...	...	...	...	...	...	...	...
Grimsby	...	...	...	...	14	19	7	4	22	428		
Horncastle	...	...	5	...	3	6	7	...	2	...		
Isle-of-Axholme	...	...	2	...	15	1	2	8	4	13		
Louth	...	...	1	...	45	10	4	11	14	130		
Sibsey	...	...	...	...		Nil			3	...		
Spilsby	...	...	3	...	22	8	57	58	85	142		
Welton	...	...	5	...	15	...	3	2	2	1		

COMMON LODGING HOUSES.

No bye-laws for the regulation of Common Lodging Houses have yet been made by the Urban District of Market Rasen and the Rural District of Horncastle. These are required to be made by Section 80 of the Public Health Act, 1875. The Districts in which Common Lodging Houses exist are the Borough of Louth, the Urban Districts of Brigg, Brumby and Frodingham, Crowle, Gainsborough, Horncastle, Market Rasen, Scunthorpe and Skegness, and the Rural Districts of Glanford Brigg, Caistor, Horncastle, Isle of Axholme and Spilsby.

The lodginghouse at Scunthorpe was burned down in December, 1914. The one at Brumby and Frodingham is reported by the Medical Officer of Health as being badly managed.

OFFENSIVE TRADES.

Under Section 113 of the Public Health Act, 1875, bye-laws must be made by Local Sanitary Authorities for the regulation of offensive trades. There are, however, none in force in the Urban Districts of Barton-on-Humber, Broughton, Cleethorpes, Horncastle, and Market Rasen, in the Borough of Louth, and the Rural Districts of Glanford Brigg, Grimsby, Horncastle, Louth, Spilsby and Welton, although such trades exist in each of these districts.

The Medical Officer of Health of Market Rasen reports that the premises of a fellmonger in a densely populated part of the district are unsuitable.

One of the fish manure and oil works at Killingholme in the Glanford Brigg Rural District is reported as causing a nuisance from time to time from fumes insufficiently condensed. This should receive attention.

At Little Coates, in the Grimsby Rural District, complaints were made of a nuisance from the premises of two liver boilers. In both cases the nuisance was remedied by alteration or reconstruction of the premises.

SCHOOLS.

The sanitation of schools is dealt with at length in my report as School Medical Officer. District Medical Officers of Health should endeavour to obtain better hygienic conditions in many of the schools. The arrangements in a large number

for heating, lighting and ventilation, for lavatory and closet accommodation, and for cleansing, are far from satisfactory, yet the subject of the sanitary condition of schools is generally dismissed in the reports by a statement that it is satisfactory.

The only adverse comments are found in the report for the Urban District of Brumby and Frodingham, and in those for the Rural Districts of Caistor and Isle of Axholme. In regard to the school at Frodingham, Dr. Clarke writes:—
“Box privies are provided. My predecessor, I understand, has called your attention to this existing evil and has pointed out the dangers arising therefrom and the urgent desirability of substituting water closets for them.”

Dr. Messiter, writing of the Epworth Council School, says that the hot water pipe heating system is not working satisfactorily. According to his own observations the children who sit in the neighbourhood of the radiator have to endure a temperature of 80 degrees fahrenheit, a condition of things absolutely opposed to both health and education.

MIDWIVES ACT.

The report of Miss Pybus's work is as follows:—During 1914 the number of midwives who notified their intention to practice was 41, of these 23 were trained and 18 were *bona fide*.

The number of inspections was 98, of these 6 were visits of enquiry and instruction.

Medical aid was obtained for mothers in 19 instances, and for infants 11 times.

For mothers the reasons were:—

Prolonged labour.....	10
Complicated labour.....	3
Other causes.....	6

For infants the reasons were:—

Eyes	3
Prematurity and feebleness.....	7
Malformation	1

There were 2 notifications of death of infants, one due to prematurity and one to convulsions.

Midwives notified 16 still-births, 9 were described as macerated.

Although the appliances of the *bona fide* midwives are better kept than hitherto, the condition of the bags is far from what it should be. There is, however, a laudable desire amongst these women to do better and I am sure that if clear demonstrations could be given to them on "The care of the maternity bag," "Routine and method of conducting normal labour," "Points to be noted in bathing babies," "Baby clothing," &c., &c., marked improvement would be seen.

The trained midwives also get out of date with their methods and it is not possible for them with their small and varying incomes to keep their midwifery up to the increasing standard required of them without help.

It would be a valuable aid to maternity and infant welfare if the education of practising midwives were kept steadily up-to-date. The midwives themselves would most certainly co-operate with any efforts in this direction as they, too, are deeply interested in their mothers and babies.

Miss Pybus found the onerous duties of County Superintendent of Nurses increasingly hard towards the close of 1914 and early in 1915 ill-health necessitated her sending in her resignation, which was accepted with regret. She gave the Council most devoted service as Inspector of Midwives and did her utmost to raise the standard of the work of the untrained women who still practice as *bona fide* midwives. Miss Wheeley has been appointed in her place. She has kindly supplied me with the report on Miss Pybus's work during 1914, which is given above.

SALE OF FOOD AND DRUGS ACT.

The County Council administer, through the police, the Sale of Food and Drugs Act, and the Milk and Cream Regulations, 1912, throughout all the districts of the administrative County, with the exception of the Borough of Louth, which is a separate authority.

The number of samples submitted for analysis in 1914 totalled 280, as follows:—89 samples of milk, 30 of butter, 4 of lard, 59 of spirits and beer, 8 of bread, 4 of flour, 2 of pepper, 1 of mustard, 23 of tea, 1 of coffee, 11 of sugar, 7 of cocoa, 2 of cheese, 2 of margarine, 5 of confectionery and jam, and 32 of other articles.

Twenty samples were found to be adulterated as follows:—

Ten samples of milk were below the authorised standard, one sample of butter contained 10 per cent. margarine and one sample of margarine contained 0.12 per cent. of boron preservative in terms of crystallised boric acid (H_3BO_3).

One sample of brandy, 1 of gin, and 4 of whisky were below legal strength.

One sample of ciderette was found to contain 0.04 per cent. salicylic acid.

One sample of rice was found to contain 0.07 per cent. excess mineral matter.

In all except one case, as shown in the table, legal proceedings were taken.

The Magistrates dismissed two of the cases against milk vendors. In one the milk was 10 per cent. deficient in milk fat, in the other there was 3 per cent. extraneous water. One milk vendor, whose milk showed 3 per cent. milk fat deficient was cautioned. In the other cases the fines imposed were so small that they are not likely to act as a deterrent to the practice of milk sophistication.

Eleven samples were examined by the Public Analyst for the Borough of Louth during the year under the Sale of Food and Drugs Act. All were found to be genuine. Five samples of milk and two of cream were examined for preservative under the Milk and Cream Regulations, 1912. In no case was any preservative found.

LINCOLNSHIRE—COUNTY OF THE PARTS OF LINDSEY.

Sale of Food and Drugs Act.

Return of the Action taken during the year ended 31st December, 1914, in regard to each Sample adversely reported on by the Public Analyst, showing what legal proceedings have been instituted and the result of proceedings, &c.

Report of Analyst for quarter ended	Number of Sample referred to in Analyst's Report.	Description of Sample.	Nature of Adverse Report.	Result of legal proceedings.	Fine.	Costs.
30th June, 1914	W. 605	Milk	10% milk fat deficient	Dismissed		
" "	H. 583	Milk	3% milk fat deficient	Cautioned	5/-	4/6
" "	M. 482	Milk	9% milk fat deficient	Convicted	5/-	13/-
" "	W.W. 438	Milk	5% milk fat deficient	Convicted	5/-	13/-
" "	W.W. 439	Milk	20% milk fat deficient	Convicted	1/-	10/6
" "	E. 470	Milk	10% milk fat deficient	Convicted	10/-	4/6
" "	B. 432	Brandy	2.4 Degrees below legal limit	Convicted	6d.	4/6
" "	L.L. 459	(iderette	0.04% Salicylic Acid	Convicted		
30th Sept., 1914	S. 637	Milk	6% extraneous water	Convicted	10/-	15/-
" "	H. 593	Butter	10% Margarine	Convicted	£5	15/-
" "	S. 634	Margarine	0.12% of boron preservative in terms of Crystallised Boric Acid (H ₃ BO ₃)			
" "	G. 71	Gin	4.9 degrees below legal limit	Convicted	10/-	4/6
" "	G. 73	Whisky	1.6 degrees below legal limit	Convicted	2/6	4/6
" "	W. 611	Whisky	4.6 degrees below legal limit	Convicted	40/-	4/6
" "	B.B. 509	Whisky	3.9 degrees below legal limit	Convicted	20/-	15/-
31st Dec., 1914	N. 493	Milk	2% extraneous water & 5% milk fat deficient	Convicted	10/6	4/6
" "	S. 643	Milk	3% extraneous water	Dismissed	—	4/6
" "	B. 450	Milk	6% extraneous water	Convicted	10/-	4/6
" "	W. 625	Whisky	3 degrees below legal limit	Convicted	10/-	4/6
" "	M. 489	Rice	0.07% excess mineral matter	Convicted	2/6	—

FACTORIES AND WORKSHOPS.

Factories include (1) all places in which mechanical power is used in aid of the manufacturing processes, and (2) all places whether mechanical power is used or not in which the industries specified in Part I. of Schedule VI. of the Act are carried on (that is print works, bleaching and dyeing works, earthenware works, lucifer match works, percussion cap works, cartridge works, paper staining works, fustian cutting works, blast furnaces, copper mills, iron mills, foundries, metal and india-rubber works, paper mills, glass works, tobacco factories, letterpress printing works, book-binding works, flax scutch mills, electrical stations).

The District Councils are charged with the duty of seeing that every factory in their districts is provided with means of escape in case of fire. In districts where Part III. of the Public Health Acts (Amendment Act), 1890, is adopted it is their duty to require the provision of sufficient and suitable sanitary conveniences.

Workshops include (1) the places specified in Part II. of Schedule 6 (that is hat works, rope works, bakehouses, lace warehouses, shipbuilding yards, quarries, pit banks of metalliferous mines, dry cleaning works, carpet beating works, and bottle washing works) unless mechanical power is used, (2) any other premises not being factories in which manual labour is exercised by way of trade or for purposes of gain or incidental to the making, altering, repairing, ornamenting, finishing or adapting for sale of any article, and to or over which the employer of the persons working there has the right of access or control.

Workplaces are places where work is done permanently and where people assemble together to do work permanently of some kind or other.

The District Councils are responsible for the sanitary condition of the workshops and workplaces in their districts.

They must keep a record of all workshops situated within their districts.

Under the Factory Act special attention must be paid to cleanliness, air space, ventilation and drainage of floors.

A Workshop is deemed to be overcrowded unless in each room at least 250 cubic feet of air space (or during overtime

400) are allowed for each person employed in the room and the Act requires a notice to be affixed in the workshop specifying the number of persons who may be employed in each room.

Lists of outworkers must be sent twice a year to the Local Authority by the occupiers of factories and workshops in whose business work is given out and it is the duty of the Authority to provide for the inspection of the places where such home work is done so as to ensure that the dwellings are not injurious or dangerous to the workers themselves, *e.g.*, through overcrowding, lack of ventilation or other insanitary conditions and that no inmate of the house is suffering from any notifiable infectious disease.

TABLE SHOWING PROCEEDINGS OF SANITARY AUTHORITIES

	Alford Urban.	Barton Urban.	Brigg Urban.	Broughton Urban.	Brumby and Frodingham Urban.	Cleethorpes Urban.	Crowle Urban.	Gainsboro' Urban.	Horncastle Urban.
1. <i>Inspections.</i>	†		†	†					
Factories (including Factory Laundries)	23	...	...		23	...	...	14
Workshops (including Workshop Laundries)	9	...	...		160	...	...	37
Workplaces (other than Outworkers' premises, included in part 3)
Total Inspections	32	...	...		183	...	...	51
Total Prosecutions
. <i>Defects Found.</i>									
Nuisances under Public Health Acts...	2	...	...		49	...	...	11
Offences under Factory and Workshop Act
Total defects found	2	...	...		49	...	...	11
3. <i>Home Work.</i>									
(a) Number of names of Outworkers received from employers twice in the year	15	...
(b) Ditto once in the year	5
(c) Number of addresses of Outworkers received from other Councils
(d) Number of addresses of Outworkers forwarded to other Councils
Notices served on Occupiers as to keeping or sending lists
(e) Number of inspections of Outworkers' premises...
(f) Outwork in unwholesome premises (Section 108)—Instances
(g) Outwork in infected premises (Sections 109 and 110)—Instances
4. Registered Workshops—									
Total	24	...	...		99	20	104	62
5. Underground Bakehouses in use at the end of the year	2

† No Return.

UNDER THE FACTORY AND WORKSHOP ACT.

Louth Borough.	Mablethorpe Urban.	Market Rasen Urban.	Roxby-c-Risby Urban.	Scunthorpe Urban.	Skegness Urban.	Winterton Urban.	Woodhall Spa Urban.	Glanford Brigg Rural.	Caistor Rural.	Gainsboro' Rural.	Grimsby Rural.	Horncastle Rural.	Isle of Axholme Rural.	Louth Rural.	Sibsey Rural.	Spilsby Rural.	Welton Rural.
10	...			38	†	...	..	...	...	...	12	...	...	†	...	...	} 286
34	12			87		12	12	...	86	...	24	68	25		50	120	
...	13	...	...	...	...	67	50		10	...	
44	12			125		12	25	...	86	36	135	75			60	120	286
...
4	...			4		...	...	...	...	9	...	...	...		...	9	7
1	1	3	...	...		...	5	...
5	...			4		...	...	...			10	3	...		...	14	7
30	...	No Register Kept.	Nil Return.	...		...	...	...			...	...	...		...	...	...
...
...
...
...
...
...
75	...			60		13	28	174			...	135	75		32	137	8
...

† No Return.



ABSTRACT
OF
DISTRICT REPORTS.

URBAN DISTRICTS.

ALFORD.

Medical Officer of Health :

G. A. BOSSON, M.B., M.R.C.S.

Area (land and inland water) in acres, 1911 Census...	1,138
Population, 1911 Census... ..	2,394
Population, 1914 (estimated)	2,365
Number of Inhabited Houses, 1911 Census	658
Average Number of Persons per House, 1911 Census	3.63
Total Deaths Registered in the District during 1914...	54
Nett Deaths belonging to District during 1914 ...	58
Nett Death Rate per 1,000 of the estimated Population	24.52
Death Rate corrected for age and sex distribution ...	18.40
Zymotic Death Rate per 1,000 of the estimated population ... ..	.42
Infantile Mortality (rate per 1,000 births)	120.0
Birth Rate per 1,000 of the estimated population ...	21.14

Report not received.

BARTON-ON-HUMBER.

Medical Officer of Health :

W.M. G. LOVERIDGE, L.R.C.P., L.R.C.S., L.F.P.S.G

Area (land and inland water) in acres, 1911 Census...	6,343
Population, 1911 Census... ..	6,673
Population, 1914 (estimated)	7,021
Number of Inhabited Houses, 1911 Census	1,533
Average Number of Persons per House, 1911 Census	4.35
Total Deaths Registered in the District during 1914...	88
Nett Deaths belonging to District during 1914 ...	97
Nett Death Rate per 1,000 of the estimated Population	13.81
Death Rate corrected for age and sex distribution ...	12.11
Zymotic Death Rate per 1,000 of the estimated population	2.42
Infantile Mortality (rate per 1,000 births)	111.11
Birth Rate per 1,000 of the estimated population ...	23.07

Housing Accommodation—Plans were passed during the year for five new houses and for additions and alterations to eight existing dwellings. Two hundred inspections were made to 53 houses under the Housing Act. Forty-eight requiring repairs were remedied and five were closed as unfit for habitation.

Water Supply—Less than half the number of houses are supplied from the mains. There have been many complaints by householders of scarcity of water during the year.

Dairies, Cowsheds and Milk Supply—The milk supply is good but unequal to the demand. Farmers prefer to send large quantities to Hull and Grimsby than to supply local custom. Cowsheds were visited by the Veterinary Inspector and were reported as satisfactory.

Sanitary condition of premises where foods are prepared :

The registered slaughter-houses and bakehouses have been regularly inspected and minor repairs carried out.

Unsound Food—No food or meat was condemned during the year.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—A new 15-inch sewer is in course of construction from junction with High Street, with outfall into Butts Road sewer. The whole system has had attention during the year. Dr. Loveridge recommends that a number of manholes should be constructed, so that the system could be more easily inspected and more efficiently flushed. The Butts Road sewer is again referred to as requiring the attention of the Council.

Disposal of Refuse and Excrement—The Medical Officer of Health reports that many complaints are received in regard to scavenging and recommends that regulations be framed. In many cases the period between collections is too long.

Common Lodging-houses—No reference.

Offensive Trades—No reference.

BRIGG.

Medical Officer of Health :

J. MURRAY MITCHELL, M.D., B.Sc. (Aberd.), D.P.H. (Camb.)	
Area (land and inland water) in acres, 1911 Census...	462
Population, 1911 Census... ..	3,343
Population, 1914 (estimated)	3,414
Number of Inhabited Houses, 1911 Census	752
Average Number of Persons per House, 1911 Census	4.44
Total Deaths Registered in the District during 1914...	54
Nett Deaths belonging to district during 1914 ...	36
Nett Death Rate per 1,000 of the estimated population	10.54
Death Rate corrected for age and sex distribution ...	9.01
Zymotic Death Rate per 1,000 of the estimated population ... ..	.87
Infantile Mortality (rate per 1,000 births)	86.95
Birth Rate per 1,000 of the estimated population ...	20.21

No Report received.

BROUGHTON.

Medical Officer of Health :

J. MURRAY MITCHELL, M.D., B.Sc. (Aberd.), D.P.H. (Camb.).

Area (land and inland water) in acres, 1911 Census...	7,073
Population, 1911 Census... ..	1,381
Population, 1914 (estimated)	1,409
Number of Inhabited Houses, 1911 Census	322
Average Number of Persons per House, 1911 Census	4.28
Total Deaths Registered in the District during 1914...	15
Nett Deaths belonging to district during 1914 ...	14
Nett Death Rate per 1,000 of the estimated population	9.93
Death Rate corrected for age and sex distribution ...	8.43
Zymotic Death Rate per 1,000 of the estimated population ... ..	.71
Infantile Mortality (rate per 1,000 births)	75
Birth Rate per 1,000 of the estimated population ...	28.38

Housing Accommodation—This is on the whole good. Within the last six years about 70 new houses have been built, and are admirable examples of good working class dwellings. Sixteen new houses were built last year. There is still a fair proportion of old-fashioned cottages, which from a health point of view offer serious defects both in structure and design. One hundred and seventeen houses were inspected under the Housing Acts, 14 were found defective, of which eight were remedied by the end of the year.

Water Supply—The water supply of the district is derived from wells, of which there are about 90 throughout the whole district.

The majority of the wells are sunk in the garden, and have the contents of the pail closet buried in the soil within a distance of a few feet.

In Broughton proper there are two springs and it has been proposed to pump the water from one of them into a reservoir and utilise it for a public supply.

Dairies, Cowsheds and Milk Supply—One milk seller and five cowkeepers are registered. Each cowshed is inspected about once a month. They are kept in a satisfactory condition. Dr. Mitchell advises that the Council should issue Regulations under the Dairies, Cowsheds and Milkshops Order of 1885.

Sanitary condition of premises where foods are prepared :

Three slaughter-houses, one of which is not in use, are on the register. Twenty inspections were made by the Sanitary Inspector during the year.

Bakehouses—There are none.

Unsound Food—None was found.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—No system of sewerage exists in the district. The only public drainage is for surface water. One hundred and sixteen houses drain into cesspools. The Council should see that these cesspools are made impervious. The other houses throughout the district have no drainage, the liquid refuse as a rule being thrown on the garden. There are also a number of undrained pig-styes.

Disposal of Refuse and Excrement—There are very few water closets; the majority of the houses possess pail closets which are emptied by the householders on the gardens. During the year 20 pail closets were substituted for privy vaults. One fixed receptacle was converted into a w.c.

Dr. Mitchell again points out to his Council the real necessity of instituting a scheme of public scavenging in the village of Broughton.

Common Lodging-houses—There are none.

Offensive Trades—There is one fried fish shop in Broughton and a tan yard in Castlethorpe. These were inspected and found in good order.

BRUMBY AND FRODINGHAM.

Medical Officer of Health :

J. CLARKE, L.R.C.P.I. & L.M., L.R.C.S.I. & L.M.

Area (land and inland water) in acres, 1911 Census...	4,043
Population, 1911 Census... ..	2,931
Population, 1914 (estimated)	3,159
Number of Inhabited Houses, 1911 Census	584
Average Number of Persons per House, 1911 Census	5.02
Total Deaths Registered in the District during 1914...	45
Nett Deaths belonging to district during 1914 ...	42
Nett Death Rate per 1,000 of the estimated population	13.29
Death Rate corrected for age and sex distribution ...	13.53
Zymotic Death Rate per 1,000 of the estimated population ... ..	.95
Infantile Mortality (rate per 1,000 births).	46.87
Birth Rate per 1,000 of the estimated population ...	40.51

Housing Accommodation—The housing accommodation is good with the exception of Old Frodingham and the Trent Side, which are of poor design. There were two cases of overcrowding and one house condemned during the year.

Water Supply—The eastern half of the district is supplied from a deep well in Appleby. The water is pumped to a reservoir at a considerable elevation. It is distributed by gravity and the supply is continuous. Owing to the increased demand by the erection of new houses a new bore had to be made. There is now no risk of shortage. The houses on the Trent Side depend on rain water for their supply, which is very unsatisfactory.

Dairies, Cowsheds and Milk Supply—There are 8 cowsheds in the district and 100 cows are milked. A large part of the milk is sold in the neighbouring districts. The cowsheds were inspected twice by the Medical Officer of Health and four times by the Sanitary Inspector. On the whole they were found to be in a very satisfactory condition.

There are no registered milkshops in the district.

The Medical Officer of Health states that he has given instructions on the grooming of the cows.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—There are none.

Bakehouses—There are none.

Unsound Food—No reference.

Rivers and Streams—The western area is drained directly by the Trent, into which the trifling amount of sewage finds its way by ditches. The Santon Beck is the main drain of the eastern area, but no sewage is admitted into it without purification.

Sewerage and Sewage Disposal—The new system of sewers and purifiers has been in operation for nearly four years. In the eastern half of the district the sewage, except that from a few houses, is conducted to a purifying station a mile to the east of Old Brumby. The average flow of sewage is 20,000 gallons, and the capacity of the works is 70,000 gallons per day. The old disconnected sewers are now used for carrying away storm water.

The sewage from the west side is conducted into drains which discharge themselves into the Trent.

The sewage from 12 cottages at Redbourne Hill is conducted to a considerable distance to ground which was formerly the site of a mine.

Disposal of Refuse and Excrement—The excrement is disposed of on the conservancy system. The houses are provided with box closets, and the contents of these are

removed weekly by scavengers. There are water closets in 70 houses. They are compulsory in all new buildings. House refuse is accumulated in sanitary dustbins, with which all houses are provided.

Common Lodging-houses—There is one which accommodates 30 men. There is much to be desired as regards its general management.

Offensive Trades—No reference.

CLEETHORPES.

Medical Officer of Health :

O. M. BOOTH-MILNER, M.R.C.S., L.R.C.P. (Lond.).

Area (land and inland water) in acres, 1911 Census...	1,185
Population, 1911 Census... ..	21,417
Population, 1914 (estimated)	24,265
Number of Inhabited Houses, 1911 Census	4,917
Average Number of Persons per House, 1911 Census	4.35
Total Deaths Registered in the District during 1914...	247
Nett Deaths belonging to District during 1914 ...	271
Nett Death Rate per 1,000 of the estimated population	11.17
Death Rate corrected for age and sex distribution ...	11.63
Zymotic Death Rate per 1,000 of the estimated population ... ..	.82
Infantile Mortality (rate per 1,000 births)	91.50
Birth Rate per 1,000 of the estimated population ...	25.22

Housing Accommodation—One hundred and fifty-two new houses were erected during the year of which 105 were six-roomed dwellings. Sixteen alterations and extensions were made to existing houses. Under the Housing Act 159 houses have been completely examined. As a result repairs and improvements were effected in 97 houses. Three were found to be unfit for human habitation and closing orders were made.

Water Supply—With the exception of outlying places the whole of the District is supplied by the Grimsby Waterworks Company. The supply is constant and abundant. It is very pure but of a hard character. The houses where wells are used are beyond the range of the public supply.

Dairies, Cowsheds and Milk Supply—Most of the milk sold in the District is imported by 22 purveyors from neighbouring farms. There are also one cowkeeper and 84 milk shops in the District, all registered. The cowsheds and milkshops have been regularly inspected, and have been generally found in a fairly good state. The standard of

cleanliness varies. Notices giving general instructions as to the necessity of keeping the sheds clean and lime-washing of the premises, together with suggestions as to cleanliness in milking operations have been sent out.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—There are 8 licensed slaughter-houses, all private, 2 used only in the summer months. The licences are renewed annually. Frequent visits are paid by the Sanitary Inspectors on slaughtering days. The slaughter-houses are structurally good. There is a lack of cleanliness during the busy periods of the year. Butchers are not now allowed to sub-let their premises to other persons without permission.

Bakehouses—There are 21 bakehouses, all above ground. They are frequently visited, and taken as a whole, they are in a satisfactory state.

Unsound Food—No legal proceedings were taken during the year for unsound food as owners agreed to its confiscation.

Two carcasses of beef were destroyed for tuberculosis. The following were also destroyed :—1 beast's liver (necrosis), 4 cysts from lungs of sheep and beast, 80 bananas, 89 coalfishes, 120 dabs, and 6 stones of other fishes—haddocks, plaice, whittings, etc.

Pollution of Rivers—The estuary of the Humber receives the whole of the sewage of the District.

The Carr Drain, which forms a portion of the boundary between Grimsby and Cleethorpes, is generally full of stagnant water, which is considerably polluted from manured lands, and from household refuse. Its condition is a menace to the public health.

Sewerage and Sewage Disposal—The new sewerage of the town is nearing completion. The main sewer commences at the northern end of the district, Park Street, and flows along Grimsby Road to a Pumping Station in Poplar Road, which also receives some of the sewerage of the northern slope of the Alexandra Ward. Its contents will then be pumped through a rising main up Isaac's Hill, a lift of over 40 feet, when it will flow by gravitation along St. Peter's Avenue and behind the Kingsway to a storage tank of 1,000,000 gallon capacity. Another pumping station is erected on the Golf Links to lift the sewage into this tank from which it will be automatically discharged into the sea at low water mark. The capacity of the new scheme is such that it will be able to deal with a population of over 80,000.

Disposal of Refuse and Excrement—The water carriage system is practically universal throughout the district. There are only 32 privies in the district, some of which are in the outlying houses and have no connection with the sewerage system. One box privy has been converted into a W.C. during the year and one brick ashpit abolished.

The removal of house refuse is undertaken by the Council weekly during Winter months, and bi-weekly during Summer months. The refuse is tipped at the depôt in Humberstone Road. The refuse destructor is now in working order.

Common Lodging-houses—There are none.

Offensive Trades—The only one in the district is that of a fat extractor, whose premises are on the outskirts of the district.

CROWLE.

Medical Officer of Health :

W. H. M. ALEXANDER, M.B., C.M. (Glas.).

Area (land and inland water) in acres, 1911 Census...	6,926
Population, 1911 Census... ..	2,853
Population, 1914 (estimated)	2,882
Number of Inhabited Houses, 1911 Census	705
Average Number of Persons per House, 1911 Census	4.04
Total Deaths Registered in the District during 1914...	27
Nett Deaths belonging to district during 1914 ...	31
Nett Death Rate per 1,000 of the estimated population	10.75
Death Rate corrected for age and sex distribution ...	8.24
Zymotic Death Rate per 1,000 of the estimated population ... ..	.34
Infantile Mortality (rate per 1,000 births)	—
Birth Rate per 1,000 of the estimated population ...	26.12

Housing Accommodation—Three new houses were built during the year. There is still a scarcity of houses.

Water Supply—The houses are supplied by private wells. The water is extremely hard.

Dr. Alexander advises that large rain water tanks should be supplied to new houses.

Dairies, Cowsheds and Milk Supply.—There are 25 on the register. They have been inspected once every two months. There were 61 cows in the district.

In all 76 inspections were made during the year, and the general condition of the cowsheds and premises was good.

There is no arrangement for veterinary inspection of cows.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—There are 7 on the register. Forty-two inspections have been made. All were in a clean condition.

Bakehouses—There are 5, none underground. Thirty inspections have been made.

Unsound Food—None was found.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—No reference.

Disposal of Refuse and Excrement.—Scavenging is carried out by the Council under the supervision of the Inspector of Nuisances. About 58 sanitary pans are emptied and removed weekly.

During the year the Council have bought a tip for the disposal of rubbish, other than excrement.

There are 4 houses with privy vaults. Fifty-eight houses have pail closets. Six pail closets were substituted for privy vaults. Five houses have water closets.

Common Lodging - houses. — There are 2 registered. Eighteen inspections have been made.

Offensive Trades—There are none.

GAINSBOROUGH.

Medical Officer of Health :

J. A. HACKETT, M.B., Ch.B.

Area (land and inland water) in acres, 1911 Census...	2,406
Population, 1911 Census... ..	20,587
Population, 1914 (estimated)	21,605
Number of Inhabited Houses, 1911 Census	4,516
Average Number of Persons per House, 1911 Census	4.55
Total Deaths Registered in the District during 1914...	282
Nett Deaths belonging to District during 1914 ...	282
Nett Death Rate per 1,000 of the estimated population	13.05
Death Rate corrected for age and sex distribution ...	13.48
Zymotic Death Rate per 1,000 of the estimated population	1.62
Infantile Mortality (rate per 1,000 births)	124.77
Birth Rate per 1,000 of the estimated population ...	25.22

No Report received.

HORNCASTLE.

Medical Officer of Health :

ARTHUR BOULTON, M.R.C.S., L.R.C.P., D.P.H.

Area (land and inland water) in acres, 1911 Census...	1,421
Population, 1911 Census... ..	3,900
Population, 1914 (estimated)	3,852
Number of Inhabited Houses, 1911 Census	1,010
Average Number of Persons per House, 1911 Census	3.86
Total Deaths Registered in the District during 1914...	65
Nett Deaths belonging to district during 1914 ...	58
Nett Death Rate per 1,000 of the estimated population	15.05
Death Rate corrected for age and sex distribution ...	11.14
Zymotic Death Rate per 1,000 of the estimated population ... ..	.26
Infantile Mortality (rate per 1,000 births)	75.75
Birth Rate per 1,000 of the estimated population ...	17.13

Housing Accommodation—One case of overcrowding was found and remedied during the year. No new houses were built during the year. One hundred and sixteen inspections were made of 102 houses.

Water Supply—The supply is obtained from a deep bore in the chalk at Cawkwell, with occasional admixture with surface water when the supply runs short. It is delivered by gravitation. The supply was short for several months in 1914 but its purity was maintained.

Dairies, Cowsheds and Milk Supply—The Medical Officer of Health reports that the milk produced in the district and that which is imported is fairly wholesome, but he points out that farmers and cowkeepers have still something to learn in the vital matter of cleanliness. His proposal that a bye-law be made enforcing cowkeepers selling milk to concrete the floors of the cowsheds was favourably considered by the Council, but owing to the war was not adopted.

There is no veterinary inspection of dairy cattle. Dr. Boulton would like to see facilities afforded at the County Laboratory for the examination of milk for tubercle bacilli.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—The 8 registered slaughter-houses were inspected twice in the year by the Medical Officer of Health and six times by the Inspector of Nuisances. In 5 cases it was found that the bye-laws were being contravened in regard to cleanliness. All were remedied.

Bakehouses—There are 14 in the district 2 of which are underground. They have all been inspected by the Medical Officer and the Inspector of Nuisances has paid 17 visits. In some cases the floors were badly in need of repair. One was concreted during the year.

Unsound Food—Some tuberculous offal was found buried near a slaughter-house but the carcase had been got away.

Pollution of Rivers—The Medical Officer of Health reports that there is practically no pollution of the Bain, Waring or Thunker, beyond what is unavoidable from the manuring of land.

Sewerage and Sewage Disposal—Sewer ventilators are gradually being introduced. There was no extension of the sewers made in the year.

Disposal of Refuse and Excrement—The Medical Officer strongly advocates the conversion of privies to water closets and urges the universal adoption of a galvanised iron ashbin with a tight fitting lid. In 1914 248 houses had privy middens, 29 had moveable receptacles, 645 had water closets and 74 waste water or hand flushed closets.

Common Lodging-houses—No reference.

Offensive Trades—There are two receivers and dressers of fallen stock in the district.

LOUTH BOROUGH.

Medical Officer of Health :

W. J. BEST, M.R.C.S., L.S.A., D.P.H.

Area (land and inland water) in acres, 1911 Census...	2,749
Population, 1911 Census... ..	9,880
Population, 1914 (estimated)	10,005
Number of Inhabited Houses, 1911 Census	2,626
Average Number of Persons per house, 1911 Census	3.76
Total Deaths Registered in the District during 1914...	156
Nett Deaths belonging to district during 1914 ...	151
Nett Death Rate per 1,000 of the estimated population	15.09
Death Rate corrected for age and sex distribution ...	11.55
Zymotic Death Rate per 1,000 of the estimated population ... ..	.89
Infantile Mortality (rate per 1,000 births)	65.49
Birth Rate per 1,000 of the estimated population ...	16.79

Housing Accommodation—Eighty-nine houses were inspected under the Housing Act during the year. Eight closing orders were made. Eighty-one houses found defective were altered or repaired. Four new houses for the working classes were erected during the year.

Water Supply—About 60 per cent. of the houses are supplied by the Louth Water Company. The remainder have wells. The water from two wells was analysed and found to be polluted. One was closed and the other cleansed and repaired. The public supply is obtained chiefly from wells situated in Hubbard's Valley and also from the Welton springs. This latter source appears to have been liable to pollution in 1914.

Dairies, Cowsheds and Milkshops—There are 24 cowsheds and 2 dairies on the register, and 180 milch cows in the district. Three out of five contraventions of regulations were remedied.

Slaughter-houses—17 are on the register to which 16 inspections have been made. There were no contraventions of the bye-laws.

Bakehouses—There are 15 in the district. Conditions of the storage of flour were satisfactory. One case of failure to limewash a bakehouse was remedied.

Unsound Food—The fore-quarters of a cow were found to be tuberculous and were condemned.

Pollution of Rivers—The Medical Officer of Health states that now that the new sewage disposal works are open nothing remains to free the River Lud from pollution but the connecting up of house drains to the new system.

Sewerage and Sewage Disposal—One hundred yards of new sewer have been laid during the year.

The new sewage disposal works are now in operation and produce an effluent of a satisfactory character.

Disposal of Refuse and Excrement—This is partly by means of water closets and partly on the conservancy system. About 13 per cent. of the houses are supplied with water closets. During the year 52 water closets were substituted for dry closets. The dry closets are emptied by a contractor fortnightly in winter and weekly in summer. House refuse is removed by the scavengers to a disused lime pit near the town. There are still five privy vaults in the district.

Common Lodging-houses—There are two, both registered. They are well conducted.

Offensive Trades—There are four in the district. No complaints have been made.

Sale of Food and Drugs Act, and Milk and Cream Regulations—Eighteen samples were analysed during the year. All were found to be genuine.

MABLETHORPE.

Medical Officer of Health :

J. IREDALE, L.R.C.P., L.R.C.S.

Area (land and inland water) in acres, 1911 Census...	3,168
Population, 1911 Census... ..	1,232
Population, 1914 (estimated)	1,335
Number of Inhabited Houses, 1911 Census	320
Average Number of Persons per House, 1911 Census	3.85
Total Deaths Registered in the District during 1914...	20
Nett Deaths belonging to district during 1914 ...	19
Nett Death Rate per 1,000 of the estimated population	14.23
Death Rate corrected for age and sex distribution ...	11.83
Zymotic Death Rate per 1,000 of the estimated population	—
Infantile Mortality (rate per 1,000 births)	100
Birth Rate per 1,000 of the estimated population ...	7.49

Housing Accommodation—Plans for the erection of 20 new houses have been passed.

Water Supply—The water is obtained from deep bore wells supplied to each house and the supply appears to be sufficient. The scheme for a public supply has not yet matured.

Dairies, Cowsheds and Milk Supply—Ten inspections have been made to the 10 registered cowsheds. The milk supply is good. A certain amount is brought into the district from the neighbouring villages.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—There are two private slaughter-houses which have been inspected frequently.

Bakehouses—There are 3. They have been inspected on several occasions and were found to be kept clean and well ventilated.

Unsound Food.—No reference.

Pollution of Rivers.—No reference.

Sewerage and Sewage Disposal.—The new contact beds at the Sewage Farm are of great service.

Disposal of Refuse and Excrement—Owing to a number of soldiers being billeted in the district the work of scavenging was increased. It was done fairly well and without any nuisance being caused. Scavenging is done by the Council's own men. There are still many privy vaults but these are altered whenever opportunity arises.

Dr. Iredale desires his Council to make it compulsory for every house to be provided with a galvanised iron ash-bin with a tight fitting lid.

Common Lodging-houses—There are none.

Offensive Trades—There are none.

MARKET RASEN.

Medical Officer of Health :

D. F. TORRENS, B.A., M.B., D.P.H.

Area (land and inland water) in acres, 1911 Census...	976
Population, 1911 Census... ..	2,296
Population, 1914 (estimated)	2,333
Number of Inhabited Houses, 1911 Census	596
Average Number of Persons per House, 1911 Census	3.85
Total Deaths Registered in the District during 1914...	35
Nett Deaths belonging to district during 1914 ...	36
Nett Death Rate per 1,000 of the estimated population	15.43
Death Rate corrected for age and sex distribution ...	12.25
Zymotic Death Rate per 1,000 of the estimated population	1.71
Infantile Mortality (rate per 1,000 births)	80.80
Birth Rate per 1,000 of the estimated population ...	19.29

Housing Accommodation—The number of houses inspected under the Housing Act was 25.

Water Supply—The water supply continues to be satisfactory, with the exception of Linwood Road, Walesby Road and Wold View. The new powers obtained by the Water Company will, it is understood, enable them to supply water at a sufficient pressure to supply these points with a continuous supply. A sample of water taken from a well was found to contain inorganic particles and animalculæ. The public supply was laid on. The public supply at present is not sufficient for the complete flushing of sewers.

Dairies, Cowsheds and Milk Supply—There are 9 cowsheds and 9 milkshops on the register. Eighteen inspections were made to cowsheds and 18 to milkshops. There were 24 milch cows in the district.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—There are 5 on the register, to which 60 inspections have been made. Four defects were remedied.

Bakehouses—There are 6 in the district, and 36 inspections were made. Two were remedied.

Unsound Food—Ten articles were seized and 10 were surrendered.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—The system is not working satisfactorily. Attention is drawn to the junction at the corner of Dear Street and King Street, and also to the junction between the north section of the sewerage system and the main section on the Middle Rasen Road. In both these cases the branch joins the main almost at right angles, so the two streams meeting at such an angle lose much of their velocity and momentum. The system can have but little fall at the best, but the waste of velocity and momentum in this way robs it of much of the advantage of the available fall. The extension of the public water supply to Middle Rasen will greatly increase the amount of sewage to be dealt with at the Sewage Farm. The ground is already sick and the effluent unsatisfactory. More ground or some auxiliary tanks or filters are now required, and will be still more necessary later.

Disposal of Refuse and Excrement—The Council contracts for the removal of refuse. Dr. Torrens writes that there is still need for a covered cart in which to remove the refuse from ashbins. There were 140 privies with fixed receptacles and 288 with moveable receptacles. There were 180 water closets and three waste water and hand-flushed closets.

Common Lodging-houses—There is only one and it is cleanly kept and well ordered.

Offensive Trades—There are two, both fellmongers, to which six inspections have been made. One is situated in a densely populated part of the town and the premises are unsuitable and should be removed.

ROXBY-CUM-RISBY.

Medical Officer of Health :

E. J. TONGUE, M.R.C.S., L.R.C.P.

Area (land and inland water) in acres, 1911 Census...	4,908
Population, 1911 Census... ..	378
Population, 1914 (estimated)	375
Number of Inhabited Houses, 1911 Census	82
Average Number of Persons per House, 1911 Census	4.60
Total Deaths Registered in the District during 1914...	9
Nett Deaths belonging to District during 1914 ...	9
Nett Death Rate per 1,000 of the estimated population	24
Death Rate corrected for age and sex distribution ...	23.35
Zymotic Death Rate per 1,000 of the estimated population	3.3
Infantile Mortality (rate per 1,000 births)	176.47
Birth Rate per 1,000 of the estimated population ...	45.3

Housing Accommodation—One hundred and eighteen houses were inspected under the Housing Act. Twenty-six which were found to have defects were remedied. Three new houses were built during the year.

Water Supply—Twenty houses in Roxby, and all the houses in Dragonby, are connected with the public supply from Scunthorpe. The rest of the houses are supplied from private wells.

Dairies, Cowsheds and Milk Supply—There are two registered cowsheds which have been regularly inspected and found to be in good order.

Sanitary condition of premises where foods are prepared :

There are no slaughter-houses or bakehouses.

Unsound Food—No reference.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—At Dragonby the drains end in a settling chamber which is emptied periodically.

Disposal of Refuse and Excrement—Scavenging is undertaken by the Council for all the houses at Dragonby. At Roxby it is done by occupiers. There are 61 houses provided with pail closets and 57 privy vaults. Seven privy vaults were converted into pail closets during the year.

Dr. Tongue strongly urges that privy vaults be replaced by pail closets as opportunity occurs.

Common Lodging-houses—No reference.

Offensive Trades—There are none.

SCUNTHORPE.

Medical Officer of Health :

M. R. J. BEHRENDT, L.R.C.P., L.R.C.S.

Area (land and inland water) in acres, 1911 Census...	1,032
Population, 1911 Census... ..	10,170
Population, 1914 (estimated)	11,359
Number of Inhabited Houses, 1911 Census	2,041
Average Number of Persons per House, 1911 Census	4.98
Total Deaths Registered in the District during 1914...	127
Nett Deaths belonging to District during 1914 ...	133
Nett Death Rate per 1,000 of the estimated population	11.7
Death Rate corrected for age and sex distribution ...	12.40
Zymotic Death Rate per 1,000 of the estimated population	1.40
Infantile Mortality (rate per 1,000 births)	110.7
Birth Rate per 1,000 of the estimated population ...	31.9

Housing Accommodation—Five hundred and four houses were inspected under the Housing Act. There were a few empty houses at the end of the year. One demolition and four closing orders were issued.

Water Supply—At Gunness water is got from shallow wells or rain water is stored for use in cisterns. At Santon Terrace the houses are supplied from the main of the Brumby and Frodingham Urban District. The Scunthorpe Waterworks supply 1,572 houses. In the remainder of the district there are surface wells. The catchment and pumping station of the Waterworks are on Risby Common and the reservoir on Sawcliffe Hill. During the year work has been carried on to the south of the pumping station, which, when completed will increase the supply.

Dairies, Cowsheds and Milk Supply—The milk supply is obtained from outside the district. The number of milk sellers on the register is 11. Their premises are regularly inspected and found in good order.

Sanitary condition of premises where foods are prepared :

Slaughter-houses. There is one public slaughter-house, one licensed and two registered. They have been regularly inspected.

One of the registered slaughter-houses is badly constructed and badly placed.

Dr. Behrendt writes—"The slaughtering of animals intended for human food anywhere else than in public abattoirs should in the interest of the public health be prohibited. Until this is done the inspection of meat can never be effective."

Bakehouses. There are 11 in the district. They were all visited and found in a satisfactory condition.

Unsound Food—The following articles were surrendered on it being pointed out that they were unfit for human consumption :—5 rabbits, 4 sets of beasts' lungs, 2 beasts' livers, the complete carcase of a heifer and a salmon.

Pollution of Rivers—"The completion of the sewage works and the means taken to clarify the sewage from the premises at Santon Terrace will no doubt remove the gross pollution of the Santon Beck mentioned in former reports."

Sewerage and Sewage Disposal—At Gunness and at Santon Terrace drainage is entirely exterior to the houses. At Gunness the yard drains empty their contents into cemented cesspools. The Santon Terrace sewer discharges into a

couple of septic tanks, the effluent from which flows into the Santon Beck. The sewage of the town is carried away some distance from the town to the sewage works. After sedimentation and screening it is distributed on filter beds, and the purified effluent passed into Santon Beck.

Some of the branch sewers ought to be relaid to prevent flooding of streets and premises which they are intended to serve.

Disposal of Refuse and Excrement—The houses in the outlying parts of the district have pail closets. During the year 11 were built at Gunness. All new houses in Scunthorpe have water closets. During the year 11 pail closets were converted into water closets. The number of water closets and pail closets in the whole district at the end of the year was respectively 603 and 1,844. The scavenging of the district is done by labour directly employed by the Council, with the exception of Santon Terrace where it is done by contract.

“The difficulty in the ultimate disposal of dry refuse mentioned in previous reports still exists.”

Common Lodging-houses—The lodging-house was regularly inspected and found in good order until December 15th, when it was burned down.

Offensive Trades—There are none.

SKEGNESS.

Medical Officer of Health :

STANLEY WALLACE, M.R.C.S. (Eng.), L.R.C.P. (Lond.).

Area (land and inland water) in acres, 1911 Census...	1,922
Population, 1911 Census... ..	3,775
Population, 1914 (estimated)	5,151
Number of Inhabited Houses, 1911 Census	802
Average Number of Persons per House, 1911 Census	4.70
Total Deaths Registered in the District during 1914...	47
Nett Deaths belonging to District during 1914 ...	40
Nett Death Rate per 1,000 of the estimated population	7.76
Death Rate corrected for age and sex distribution ...	7.87
Zymotic Death Rate per 1,000 of the estimated population	—
Infantile Mortality (rate per 1,000 births)	32.78
Birth Rate per 1,000 of the estimated population ...	11.84

Housing Accommodation—The inspections have again shown a very satisfactory state of affairs. One dwelling was condemned and demolished.

Dr. Wallace recommends that the preliminary steps towards the adoption of Part II. of the Housing and Town Planning Act should be taken during this period of temporary stagnation, ready for the time when the progress of the town will be even more rapid than before.

Water Supply—"A plentiful and adequate supply of pure water was obtainable during the whole of last year, being entirely satisfactory in every way."

Dairies, Cowsheds and Milk Supply—These premises, 12 in number, are kept under constant supervision.

"It is most important that tests should be regularly made of the milk supplied from the different cowsheds in order to ascertain that tubercle bacilli are absent."

Slaughter-houses—There are four on the register, which are visited frequently. Dr. Wallace again strongly recommends the Council to provide public abattoirs. "In my opinion such provision is essential in this town, where the slaughter-houses are not sufficient or efficient."

Bakehouses—There are six on the register, to which 33 inspections have been made.

Unsound Food—Fifteen articles were surrendered.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—At the sewage farm a large portion of the filtering media has been replaced with granite.

Dr. Wallace writes:—"I believe the time is not far distant when it will be advisable to remove the disposal works to a more remote site."

There are some private streets for which there is no drainage for surface water.

Disposal of Refuse and Excrement—There are still a few ashpits in use which should be discontinued as soon as possible.

Dr. Wallace again strongly advises a bi-weekly collection of the refuse, at any rate during the summer months.

Common Lodging-houses—There is one, to which eight inspections have been made. All contraventions of by-laws were remedied.

Offensive Trades—There are none.

WINTERTON.

Medical Officer of Health :

W. I. T. BAKER, L.R.C.P., L.R.C.S.

Area (land and inland water) in acres, 1911 Census...	3,818
Population, 1911 Census... ..	1,426
Population, 1914 (estimated)	1,448
Number of Inhabited Houses, 1911 Census	366
Average Number of Persons per House, 1911 Census	3.89
Total Deaths Registered in the District during 1914...	21
Nett Deaths belonging to district during 1914 ...	21
Nett Death Rate per 1,000 of the estimated population	14.50
Death Rate corrected for age and sex distribution ...	10.90
Zymotic Death Rate per 1,000 of the estimated population	—
Infantile Mortality (rate per 1,000 births)	125
Birth Rate per 1,000 of the estimated population ...	27.62

Housing Accommodation—Twelve new houses have been erected during the year. Seventy-five houses were inspected under the Housing Acts. Fifteen had defects which were remedied. The housing is satisfactory.

Water Supply—The Council's water supply has been laid on to 68 per cent. of the houses in the district. The remaining part of the district gets its water from wells, some of which are looked upon with suspicion. Two samples of water from wells were submitted for analysis and were both found to be unfit for domestic use.

Dairies, Cowsheds and Milk Supply—These have been inspected by the Medical Officer of Health and the Sanitary Inspector, and were the subject of a special joint report. All cowsheds in the district are now modernised, are clean, well kept, drained, have ample air space and cemented floors.

Sanitary condition of premises where foods are prepared :

Bakehouses—These have been inspected and found to be kept exceptionally clean and limewashed.

Slaughter-houses—There are 2 licensed and 2 registered slaughter-houses in the district. They have the town's water laid on and are kept satisfactorily.

Unsound Food—No reference.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—One length of new sewer 61 yards long has been laid. The Council is continuing its policy of improving the drainage of the town by replacing old and defective drains by new sanitary ones.

Disposal of Refuse and Excrement—Excrement disposal is carried out by a night-soil collector. There are 286 pail closets cleansed weekly by the Council's contractor.

Common Lodging-houses—There are none.

Offensive Trades—There are none.

WOODHALL SPA.

Medical Officer of Health :

ARTHUR BOULTON, M.R.C.S., L.R.C.P., D.P.H.

Area (land and inland water) in acres, 1911 Census...	1,874
Population, 1911 Census... ..	1,484
Population, 1914 (estimated)	1,656
Number of Inhabited Houses, 1911 Census	332
Average Number of Persons per House, 1911 Census	4.47
Total Deaths Registered in the District during 1914...	14
Nett Deaths belonging to District during 1914 ...	15
Nett Death Rate per 1,000 of the estimated population	9.06
Death Rate corrected for age and sex distribution ...	8.33
Zymotic Death Rate per 1,000 of the estimated population	—
Infantile Mortality (rate per 1,000 births)	100
Birth Rate per 1,000 of the estimated population ...	12.07

Housing Accommodation—Thirty-three houses were inspected under the Act. One house was found to be unfit for human habitation. No overcrowding was found to exist. Plans were passed for 5 new buildings, including 2 cottages.

Water Supply—The water main has been extended to the end of Mill Lane and also to Kirkstead Station.

The supply is constant and is derived from the Horn-castle and Woodhall Spa Water Company. The supply comes from Cawkwell and is supplemented by upland surface water from Tattershall Thorpe.

Dairies, Cowsheds and Milk Supply—The milk supply is mostly imported. Sixteen inspections to the 2 cowsheds in the district were made during the year. The Medical Officer of Health reports that they were not up to his standard of cleanliness.

Sanitary condition of premises where foods are prepared :

The 3 bakehouses and the 1 slaughter-house in the district are well kept.

Unsound Food—No reference.

Pollution of Rivers—No instance was reported in 1914.

Sewerage and Sewage Disposal—Two new lengths of sewer have been laid during the year.

Disposal of Refuse and Excrement—The sewage is treated by settling tanks and sprinkling filters. There are 31 privies with fixed receptacles, compared with 36 in 1913. Privies with moveable receptacles were reduced from 36 to 35. The number of water closets in the district were increased by 11 to 495. All the houses with fixed receptacles are outside the drainage area. House refuse is removed by scavenger in the more Urban portion of the district and burnt at the Sewage Farm. At the Witham end of the district the refuse is removed by the householders.

Common Lodging-houses—There are none.

Offensive Trades—There are none.

RURAL DISTRICTS.

GLANFORD BRIGG.

Medical Officer of Health :

J. MURRAY MITCHELL, M.D., B.Sc. (Aberd.), D.P.H. (Camb.).

Area (land and inland water) in acres, 1911 Census...	124,003
Population, 1911 Census... ..	29,895
Population, 1914 (estimated)	32,007
Number of Inhabited Houses, 1911 Census	6,862
Average Number of Persons per House, 1911 Census	4.35
Total Deaths Registered in the District during 1914...	348
Nett Deaths belonging to district during 1914 ...	378
Nett Death Rate per 1,000 of the estimated population	11.81
Death Rate corrected for age and sex distribution ...	10.25
Zymotic Death Rate per 1,000 of the estimated population	1.12
Infantile Mortality (rate per 1,000 births)	91.31
Birth Rate per 1,000 of the estimated population ...	28.05

Housing Accommodation—During the year 223 houses were built, 173 of these being at Ashby and Crosby. Eight hundred and twenty-two houses were inspected under the Housing Acts. Since the commencement of the working of the Act in 1912, 1,589 houses have been inspected and eight closing orders have been made.

A Housing Committee has been formed and a housing scheme for the parishes of Goxhill and South Killingholme is on foot. The matter is in abeyance pending a Local Government Board inquiry.

Water Supply—As the result of a petition to the Local Government Board an inquiry was held in November by an Inspector of the Board into the question of a public supply for the village of Ulceby. On the report of the Inspector, the Board pointed out to the Council the necessity of formulating a scheme. Forty-five wells have been cleaned out and protected as far as possible from surface contamination. Two, which were polluted, have been closed.

Four new bores were sunk in Ulceby, 1 in Goxhill, 2 in Killingholme, 2 in East Halton, and 1 in New Holland.

Dairies, Cowsheds and Milk Supply—Registered cowkeepers number 96. One hundred and twenty-six inspections were made to these during the year. The only dairies and milkshops in the district are in Ashby and Crosby to the number of 9. These have been inspected and found in good order. There are about 600 milch cows in the district. It is understood that the milk from about 400 of these is exported to Grimsby, Hull, Scunthorpe and other outside districts. On the whole, the milk supply for local consumption is deficient.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—There are 440 in the district not registered, which are inspected frequently. Dr. Mitchell writes that power to register slaughter-houses and make bye-laws regulating their control is desirable for the protection of the public health.

Bakehouses—There are 13 in the district. These are regularly inspected and are kept in a good sanitary condition.

Unsound Food—None found.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—Each village has its own system of drainage and sewerage. Ashby and Crosby are the only parishes which at present possess sewage disposal works. The other parishes drain their sewage into open ditches or cesspools.

Disposal of Refuse and Excrement—The pan closet system is the one chiefly in vogue throughout the district. Privy middens, however, are still far too numerous. During the year Wintringham, East Halton and Scawby were added to the list of those villages in which public scavenging is carried out.

Common Lodging-houses—Three common lodging-houses are in use in the district. These are inspected from time to time and are found on the whole to be well conducted and clean.

Offensive Trades—The only offensive trades in the district are the Killingholme Fish Manure and Oil Works. The process of manufacture as carried out by one of the works produces a nuisance from time to time by means of fumes insufficiently condensed.

CAISTOR.

Medical Officer of Health :

ALEXANDER FRASER, M.B., C.M.

Area (land and inland water) in acres, 1911 Census...	120,108
Population, 1911 Census... ..	13,146
Population, 1914 (estimated)	13,097
Number of Inhabited Houses, 1911 Census	3,102
Average Number of Persons per House, 1911 Census	4.23
Total Deaths Registered in the District during 1914...	163
Nett Deaths belonging to District during 1914 ...	162
Nett Death Rate per 1,000 of the estimated population	12.37
Death Rate corrected for age and sex distribution ...	9.94
Zymotic Death Rate per 1,000 of the estimated population ... ..	.45
Infantile Mortality (rate per 1,000 births)	55.5
Birth Rate per 1,000 of the estimated population ...	19.24

Housing Accommodation—About 480 houses were inspected under the Housing Act. Three were reported unfit and closing orders were made. One was repaired after closure. Repairs were effected in seven cases without the necessity of closure. Twelve new houses have been built during the year.

Water Supply — There is a continuous supply at Brocklesby, Caistor, Claxby, Holton, Kirmond - le - Mire, Limber, Moortown, Nettleton, Owmby, Somerby, and Walesby. The supplies at Brocklesby, Caistor, and Limber are derived from wells sunk in the chalk. The other places mentioned are supplied from water impounded in the hills and piped to their respective destinations.

The Market Rasen Water Company's scheme for the supply of Tealby has been completed, but so far only a few connections have been made.

A valuable supplementary supply has been provided by Lord Yarborough for the village of Cabourne.

Dr. Fraser writes "that the water supply at Grasby, Searby, Middle Rasen, North Kelsey, Swallow, Normanby-le-Wold, and South Kelsey, and to five farm houses along the Market Rasen Road between Holton Station and Owersby Lane is defective.

At Grasby the well has been cleaned out and deepened. At Searby two bores have been sunk in the chalk without water being found. The Market Rasen Water Company have obtained parliamentary powers to provide a supply for Middle Rasen. The Rev. T. G. Dixon, of Holton Park, has generously offered a supply of drinking water from the Holton main to the five houses above-mentioned on the Market Rasen Road.

Dairies, Cowsheds and Milk Supply—The milk supply in the district is generally deficient. The dairy farms are regularly inspected, and an improvement is noticed in regard to the ventilation and drainage of the cowsheds. The old system of approach to the milking sheds through the stock-yard has in most cases been done away with.

Sanitary condition of premises where foods are prepared : There are no public abattoirs in the district.

The private slaughter-houses are well kept.

Bakehouses—No reference.

Unsound Food—The supply of meat in the district is good.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—Caistor, North Kelsey, and South Kelsey have irrigation areas and all are in good working order.

The sewerage at the south end of the village of Keelby has been re-laid. A flushing chamber settling tank, etc., has been provided.

The small villages and isolated houses in the low country drain principally into land ditches. The villages in the Wold valleys are not generally drained. Cesspools are extensively used which often give rise to trouble.

There are comparatively few water closets in the district, but the number is steadily increasing.

Disposal of Refuse and Excrement—Caistor, Keelby, Limber, and North Kelsey are provided with scavengers. The type of closet most used is a combined closet and cemented ash receptacle of small size.

Common Lodging-houses—There is one lodging-house, which is in good condition and well managed.

Offensive Trades—No reference.

GAINSBOROUGH.

Medical Officer of Health :

H. B. WILLOUGHBY SMITH, M.B. (Lond.), F.R.C.S. (Eng.),
L.R.C.P. (Lond.).

Area (land and inland water) in acres, 1911 Census...	94,706
Population, 1911 Census... ..	14,743
Population, 1914 (estimated)	14,812
Number of Inhabited Houses, 1911 Census	3,570
Average Number of Persons per House, 1911 Census	4.12
Total Deaths Registered in the District during 1914...	183
Nett Deaths belonging to District during 1914 ...	201
Nett Death Rate per 1,000 of the estimated population	13.57
Death Rate corrected for age and sex distribution ...	11.0
Zymotic Death Rate per 1,000 of the estimated population ... ..	.54
Infantile Mortality (rate per 1,000 births)	69.20
Birth Rate per 1,000 of the estimated population ...	19.51

Housing Accommodation—Plans for 13 new houses were passed during the year and additions to four others and one school. One closing order was made.

Water Supply—The village of Morton has the public supply of the Gainsborough Urban District. The rest of the district obtains its supply from wells and rain water tanks.

Dairies, Cowsheds and Milk Supply—The milk supply is plentiful. The cowsheds registered in the district number 32. These have all been inspected and found in good order. The cows are well kept.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—There are no registered slaughter-houses in the district. Those which are in use have been inspected and found in good order.

Bakehouses—All the bakehouses in the district have been inspected and found in good sanitary condition.

Unsound Food—No meat was condemned for tuberculosis during the year.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—The arrangements for disposal are fairly adequate. Very little is carried by water, the greater part being disposed of on the land. A large number of drains have been examined and repairs done where necessary. Some new sewers were laid, but no big system of sewerage has been dealt with this year.

Disposal of Refuse and Excrement—Through most of the district the house refuse is burnt or thrown into ashpits which are cleared out periodically.

Common Lodging-houses—No reference.

Offensive Trades—There are two knackers' yards, one at Morton and the other at Newton-on-Trent. There is a bone mill at Stockwith.

GRIMSBY.

Medical Officer of Health :

G. O. McKANE, L.R.C.P.

Area (land and inland water) in acres, 1911 Census...	43,201
Population, 1911 Census... ..	10,629
Population, 1914 (estimated)	12,436
Number of Inhabited Houses, 1911 Census	2,086
Average Number of Persons per House, 1911 Census	5.09
Total Deaths Registered in the District during 1914...	122
Nett Deaths belonging to district during 1914 ...	135
Nett Death Rate per 1,000 of the estimated population	10.85
Death Rate corrected for age and sex distribution ...	10.06
Zymotic Death Rate per 1,000 of the estimated population	1.28
Infantile Mortality (rate per 1,000 births)	95.07
Birth Rate per 1,000 of the estimated population ...	22.83

Housing Accommodation—Fifty-five inspections were made during the year under the Housing Act. Twenty-seven houses were repaired, 3 were closed and 121 nuisances abated. Eighty-four new houses have been built and certified as fit for habitation during the year.

Water Supply—The parishes in the immediate vicinity of Grimsby are supplied from the Grimsby Waterworks. The supply is constant and of excellent quality. In the more remote villages the general supply is by means of artesian and surface wells, and is, on the whole, sufficient, wholesome, and free from risks of pollution. Two wells were closed at Habrough, the water being unfit for domestic purposes.

Dairies, Cowsheds and Milk Supply—There are 94 cow-keepers and 5 purveyors of milk. At the last inspection there were 908 milch cows in the district. The milk for the most part is sent to Grimsby. There are no milkshops.

Sanitary condition of premises where foods are prepared :

There are 6 slaughter-houses in the district, for which urban powers have been obtained, but bye-laws are not yet in force. Frequent visits have been made.

Unsound Food—Two carcasses of beef were condemned and destroyed. Two cwts., two quarters, of partly cured fish imported to a firm of fish curers at Little Coates was surrendered.

Pollution of Rivers—No notice of pollution of these has been brought to the notice of the Medical Officer of Health.

Sewerage and Sewage Disposal—With the exception of Immingham and parts of Little Coates and Humberstone, the cesspool and irrigation methods obtain.

At Humberstone Avenue, part of Humberstone Parish (which has become a residential neighbourhood) a scheme of sewerage and sewage disposal has been completed. That part of Little Coates close to the Borough of Grimsby is a water-carriage district.

A system of sewerage for Immingham has now been adopted by the Council.

Disposal of Refuse and Excrement—With the exception of parts of Little Coates and Humberstone pail and box systems obtain in the district.

Scavenging at Immingham and Little Coates is done by contract. The earth closets, privies, ashpits and cesspools in the remainder of the district are emptied by the respective owners and occupiers.

Common Lodging-houses—No reference.

Offensive Trades—There are three, to which ten visits have been paid. Special endeavours have been made during the year to get the complaints of the inhabitants against the trade of liver boiling at Little Coates remedied. One firm has carried out considerable alterations, and in the case of the other the premises are being entirely reconstructed.

HORNCastle.

Medical Officer of Health :

ARTHUR BOULTON, M.R.C.S., L.R.C.P., D.P.H.

Area (land and inland water) in acres, 1911 Census...	114,153
Population, 1911 Census... ..	13,102
Population, 1914 (estimated)	12,975
Number of Inhabited Houses, 1911 Census	3,173
Average Number of Persons per House, 1911 Census	4.12
Total Deaths Registered in the District during 1914...	161
Nett Deaths belonging to district during 1914 ...	185
Nett Death Rate per 1,000 of the estimated population	14.26

Death Rate corrected for age and sex distribution ...	11.58
Zymotic Death Rate per 1,000 of the estimated population ... ..	.92
Infantile Mortality (rate per 1,000 births)	96.43
Birth Rate per 1,000 of the estimated population ...	21.57

Housing Accommodation—Five hundred and fifty houses were inspected under the Housing Act. Twenty-one were reported as unfit for habitation. Closing orders were made in 11 cases and in 7 of these the closing order was determined. Ten cottages and 8 dwelling-houses and farmhouses have been built during the year. Twelve cottages were closed. Five cases of overcrowding were found and abated. Out of 291 houses inspected in Coningsby 20 had only one bedroom and 116 had only two, 71 had three and 84 had four and upwards.

Water Supply—The bulk of the water supply is derived from shallow wells, liable to pollution. Hemingby and Ashby (West) obtains water from the Horncastle Waterworks Company. At Revesby 12 houses are supplied by the Boston Waterworks. Twenty-two houses in Rauby are supplied from the Bain and Wragby is supplied from Panton.

Dairies, Cowsheds and Milk Supply—There are 31 registered milksellers in the district. They have all been inspected several times during the year. The Medical Officer reports that there is room for much improvement in the matter of cleanliness. The number of milch cows in the district is approximately 110. One milkseller was persuaded to relay his floor and drainage.

Slaughter-houses—The 16 private slaughter-houses in the district have received frequent visits from the Medical Officer and the Inspector of Nuisances. An improvement in cleanliness has been maintained.

Bakehouses—There are 23 bakehouses in the district which were inspected 40 times. In 3 cases contraventions of the Factory Acts were found and remedied. One new bakehouse was built during the year, and 4 structurally repaired.

Unsound Food—None was found.

Pollution of Rivers—One case of pollution of a stream was abated on notice being sent.

Sewerage and Sewage Disposal—One hundred and sixteen new drains were laid during the year, and in accordance with the bye-laws 141 new trapped gullies have been put down and 95 cesspools built. Two main sewers at Wragby and Mareham-on-the-Hill were cleaned out and repaired.

Disposal of Refuse and Excrement—Eighteen privies were converted during the year. Thirty-four new pail closets were built. The Medical Officer estimates the number of privy middens to be about 2,600, pail closets 400, and water closets 100.

Dr. Boulton points out the growing need for the employment of a scavenger to collect the pails in populous villages, such as Coningsby and Mareham-le-Fen.

Common Lodging-houses—Coningsby possesses the only one in the district. It has received frequent visits during the year.

Offensive Trades—No reference.

ISLE OF AXHOLME.

Medical Officer of Health :

ARTHUR F. MESSITER, M.R.C.S., L.R.C.P.

Area (land and inland water) in acres, 1911 Census...	28,070
Population, 1911 Census... ..	6,815
Population, 1914 (estimated)	6,860
Number of Inhabited Houses, 1911 Census	1,651
Average Number of Persons per House, 1911 Census	4.12
Total Deaths Registered in the District during 1914...	87
Nett Deaths belonging to district during 1914 ...	95
Nett Death Rate per 1,000 of the estimated population	13.84
Death Rate corrected for age and sex distribution ...	10.98
Zymotic Death Rate per 1,000 of the estimated population ... ..	.87
Infantile Mortality (rate per 1,000 births)	118.11
Birth Rate per 1,000 of the estimated population ...	18.51

Housing Accommodation—During the year 437 visits were made under the Housing Act. Two cases of over-crowding were found. One house was voluntarily closed. Dr. Messiter calls special attention to the impossibility in many cases of opening the windows due to structural defects. Seven new houses have been erected during the year.

Water Supply—The water from surface wells is excessively and permanently hard and also liable to pollution. In the case of newly-erected houses large and properly constructed underground cisterns for the reception of rainwater are insisted upon by the Council. In the older houses, where there is an inadequate supply, the owners are called upon to provide substantial galvanized iron tanks.

Dairies, Cowsheds and Milk Supply—There are 9 registered sellers of milk. No milk is sent out of the district,

All the cowsheds have 800 cubic feet of air space per cow. Ventilation is frequently defective. Drainage is in all cases taken outside the sheds in an open channel.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—There are 12 slaughter-houses on the register. They are kept clean and are well drained.

Bakehouses—There are two bakehouses, both at Epworth, which are kept clean and in good condition.

Unsound Food—No reference.

Pollution of Rivers—The River Trent receives directly from the villages on its banks a good deal of household sewage. "The great bulk of serious pollution of the river in this district is derived from the Stainforth and Keadby Canal, which is fed by the River Don, thereby receiving considerable pollution from large towns and populous districts of the West Riding."

Sewerage and Sewage Disposal—The open sewer ditches have been well cleaned during the dry summer. Twelve yards of six-inch pipe have been laid down in Garthorpe and 60 yards of sanitary pipe taken up, cleaned and relaid at Luddington. In Althorpe 85 yards of nine-inch pipe have been laid in continuation of the village sewer.

Disposal of Refuse and Excrement—There are only 10 water closets in the whole district. These discharge into cess-pools. There is no public scavenging undertaken.

Common Lodging-houses—There is only one, which is at Epworth. It has been regularly inspected and was found to be kept clean. The previously existing one at Belton has been demolished.

Offensive Trades—There is a chemical manure factory on the Trent at Althorpe.

LOUTH.

Medical Officer of Health :

CHARLES J. MYERS, M.R.C.S., & L.S.A.

Area (land and inland water) in acres, 1911 Census...	154,627
Population, 1911 Census... ..	18,285
Population, 1914 (estimated)	18,209
Number of Inhabited Houses, 1911 Census	4,529
Average Number of Persons per House, 1911 Census	4.03
Total Deaths Registered in the District during 1914	232
Nett Deaths belonging to district during 1914 ...	246

Nett Death Rate per 1,000 of the estimated population	13.51
Death Rate corrected for age and sex distribution ...	10.80
Zymotic Death Rate per 1,000 of the estimated population ... ..	.88
Infantile Mortality (rate per 1,000 births)	98.87
Birth Rate per 1,000 of the estimated population ...	19.44

Housing Accommodation—There were 314 houses inspected under the Housing Regulations during the year. Nine were found unfit for habitation. No closing orders were made. Two were closed voluntarily, and 5 were made fit for habitation. Repairs were effected in 66 cases. Twenty-one new dwelling-houses were erected. There have been no complaints of insufficiency of accommodation or scarcity of houses in the district. In some parishes houses are unoccupied.

Water Supply—The water supply is chiefly from artesian wells, overflowing springs, and a few surface wells. Each house or set of houses, is supplied according to circumstances.

The water in the district is usually very good. Of 15 samples analysed 6 were found to be more or less impure.

Dairies, Cowsheds and Milk Supply—There are 10 dairies and cowsheds. Eighteen inspections were made.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—No reference.

Bakehouses—Sixteen bakehouses, none underground. Kept in accordance with regulations.

Unsound Food—No reference.

Pollution of Rivers—The pollution of the stream at Welton-le-Wold will be abated when the drainage question receives attention.

Sewerage and Sewage Disposal—The systems of drainage at North Somercotes, Binbrook, Aby, and Ludford, are working satisfactory.

Disposal of Refuse and Excrement—Where no other system of disposal exists the sewage, house refuse and excrement are put on the land. There is no scavenging. The Sanitary Inspector estimates the following as the number of sanitary conveniences in the district :—Privies 1,738, pail closets 718, and water closets 175.

The drainage of Welton-le-Wold is receiving attention.

Common Lodging-houses—No reference.

Offensive Trades—The manure works at Binbrook, Donington-on-Bain, Marshchapel, and North Thoresby have worked satisfactorily.

SIBSEY.

Medical Officer of Health :

ARTHUR TUXFORD, M.D.

Area (land and inland water) in acres, 1911 Census...	21,565
Population, 1911 Census... ..	2,985
Population, 1914 (estimated)	3,021
Number of Inhabited Houses, 1911 Census	692
Average Number of Persons per House, 1911 Census	4.32
Total Deaths Registered in the District during 1914...	46
Nett Deaths belonging to district during 1914 ...	51
Nett Death Rate per 1,000 of the estimated population	16.88
Death Rate corrected for age and sex distribution ...	13.49
Zymotic Death Rate per 1,000 of the estimated population ... ..	.99
Infantile Mortality (rate per 1,000 births)	142.86
Birth Rate per 1,000 of the estimated population ...	27.80

Housing Accommodation—The number of dwelling-houses inspected between September 28th and December 31st was 25. No record of inspections prior to 28th September was left by the late Housing Inspector.

Water Supply—One hundred and sixty-four houses are supplied by the Boston Waterworks Company. Owing to alterations at the reservoir there was a shortage of water during part of the year. The Company distributed water from Willoughby to supplement the supply. The remaining houses in the district have to depend on rain water stored in tanks and on ditch water when that supply is exhausted.

Dairies, Cowsheds and Milk Supply—Dr. Tuxford again refers to the great difficulty experienced amongst the working class in obtaining milk. The want of it is greatly felt. In consequence of its scarcity, people are compelled to buy all sorts of “patent foods” for the rearing of their children. “It would be a great boon to many of the inhabitants if a public dairy was established where pure milk could be purchased.”

The dairies are well looked after.

There are 21 milk sellers in the district and 93 milch cows.

Sanitary condition of premises where foods are prepared :

Slaughter-houses—The two on the register are kept in good order.

Bakehouses—These, upon inspection were found to be in good order. There are five in the district.

Unsound Food—None found.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—There are only six houses in the district with water closets.

Disposal of Refuse and Excrement—Most of the houses have privy vaults and uncovered ashpits emptied by the householders.

Common Lodging-houses—There are none.

Offensive Trades—There are none.

SPILSBY.

Medical Officer of Health :

FRANCIS J. WALKER, M.D., L.S.Sc., M.R.C.S. (Eng.),
L.R.C.P. (Lond.), L.S.A.

Area (land and inland water) in acres, 1911 Census...	128,211
Population, 1911 Census... ..	21,012
Population, 1914 (estimated)	21,188
Number of Inhabited Houses, 1911 Census	5,228
Average Number of Persons per House, 1911 Census	4.01
Total Deaths Registered in the District during 1914...	238
Nett Deaths belonging to district during 1914 ...	246
Nett Death Rate per 1,000 of the estimated population	11.61
Death Rate corrected for age and sex distribution ...	8.96
Zymotic Death Rate per 1,000 of the estimated population ... ..	.23
Infantile Mortality (rate per 1,000 births)	62.23
Birth Rate per 1,000 of the estimated population ...	20.15

Housing Accommodation—Four hundred and ninety-five houses were inspected under the Housing and Town Planning Act, and 297 defects were remedied. Nine closing orders were made. The total number of inspections and re-inspections under the Act amounted during the year to 1,009. A special report was made on the housing accommodation in the villages of Eastville, Midville, and New Leake, and as a result the Council have decided to build two cottages in Eastville and Midville. A report was also made on the accommodation in Wainfleet All Saints. Instructions have been given for the preparation of plans for the erection of four cottages in that parish.

Water Supply—Spilsby with Hundleby, Sutton-on-Sea, and Wainfleet All Saints possess a public supply. A part of Winthorpe is supplied with water from the Skegness mains as also are some houses in Burgh and Welton. A few houses

in West Fen are supplied from the mains of the Boston Waterworks Company. A private reservoir having a capacity of 10,000 gallons is situated in Candlesby and supplies 17 houses. Eight houses and farm buildings at Hareby get their supply from a private reservoir of 15,000 gallons. At Skendleby Salter a bore hole 150 feet deep has been made during the year, and a reservoir of a capacity of 10,000 gallons has been constructed. Six houses are supplied from this source. The Bethlem Hospital Estate at Wainfleet St. Mary and a few other properties are supplied from a reservoir at Wainfleet Hall. The Wold villages are for the most part supplied with spring water from wells, each house having a separate well. The Fen villages have to depend principally on rain water, which they collect in cisterns or upon water obtained from dykes. A scheme for a public supply of drinking water to these villages is to be considered after the war. One of the suggested sources for the supply is Bolingbroke, and Dr. Walker draws attention to the possibility of the borough of Boston seeking to supplement its supply from the same source which might not prove sufficient for both. Out of 40 samples of well water analysed 12 were found to be good, 12 suspicious and 16 bad. The Local Government Board have so far refused to sanction a charge of 10s. per house made on houses in St. Michael's Lane and Goose Lane, Wainfleet St. Mary, to cover the cost of providing a proper supply of drinking water to these houses.

Dairies, Cowsheds and Milk Supply—The 74 dairies, cowsheds and milkshops registered in the district have been inspected and their condition found satisfactory. Six defects were found and remedied.

Slaughter-houses—There is no public slaughter-house in the district. Thirty-two private slaughter-houses are licensed and one registered to which bye-laws apply. One new one has been erected. Four slaughter-houses situated in Eastville, Skendleby, Thorpe, and Willoughby are exempt from bye-laws. All have been inspected and any defects found remedied.

Bakehouses—Forty-six bakehouses have been inspected and found to be kept clean. One at Spilsby and another at Mavis Enderby are not now in use. None are underground.

Unsound Food—None found.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—Spilsby and Hundley are combined for sewerage purposes, the disposal works being

situated about half-a-mile south-east of Spilsby Railway Station. During the year the drains from 62 houses have been connected with the new sewers. Fifty w.c.'s have been substituted for privies in these two parishes. The drainage of the Union Workhouse has been remodelled. Owing to the war the sewerage scheme for Burgh, which was estimated to cost £5,400, has not been proceeded with.

The scheme for Sutton-on-Sea has not yet been taken over by the Council. Six sludge beds have been constructed. The drains from 36 houses have been connected with the new sewers. The volume of sewage to be dealt with in times of heavy rain suggests that subsoil water is getting into the sewers. The Engineers were asked to report. The Surveyor has been instructed to prepare plans and estimates for settling tanks and filters for the disposal of the sewage from Wainfleet All Saints.

Disposal of Refuse and Excrement—The removal of night soil and house refuse is carried out by contract under the supervision of the Council in the parishes of Spilsby, Hogsthorpe, Wainfleet, Winthorpe, and Sutton. In the remainder of the parishes the removal is left to each householder. The pan closet system is the one in vogue. There are still some privy vaults to be found, but these are altered when opportunity occurs.

Common Lodging-houses—The only one in the district is at Partney. It is well conducted.

Offensive Trades—There are no bye-laws with regard to offensive trades. The trades carried on are horse slaughterer's and fellmongers. These premises have all been inspected.

WELTON.

Medical Officer of Health :

CHARLES HARRISON, M.D., D.P.H. (Camb.).

Area (land and inland water) in acres, 1911 Census...	83,712
Population, 1911 Census... ..	11,111
Population, 1914 (estimated)	11,071
Number of Inhabited Houses, 1911 Census	2,661
Average Number of Persons per House, 1911 Census	4.17
Total Deaths Registered in the District during 1914...	113
Nett Deaths belonging to district during 1914 ...	121
Nett Death Rate per 1,000 of the estimated population	10.92
Death Rate corrected for age and sex distribution ...	8.99

Zymotic Death Rate per 1,000 of the estimated population	...	...	...	...	...	...	.45
Infantile Mortality (rate per 1,000 births)	...	...	...	...	...	...	43.67
Birth Rate per 1,000 of the estimated population	...	...	...	...	...	...	20.68

Housing Accommodation—One hundred and forty-three houses were inspected under the Housing Act. One house was found to be unfit for human habitation and a closing order was made.

Water Supply—Samples of water were taken from 17 wells at Saxilby and 14 were found to be unfit for domestic use.

The public supply well in the village of Langworth has had the filter cleansed and re-charged.

Dairies, Cowsheds and Milk Supply—Two cowsheds have been closed during the year, and four new sheds have been erected. The general condition of cows and sheds is very good.

Sanitary condition of premises where foods are prepared :

Slaughter-houses and Bakehouses—These have been inspected during the year and no nuisance was found to exist in connection therewith.

Pollution of Rivers—No reference.

Sewerage and Sewage Disposal—Three new sewers and four new drains have been laid.

Disposal of Refuse and Excrement—The scavenging in the villages of Nettleham and of Saxilby has been satisfactorily carried out.

Common Lodging-houses—No reference.

Offensive Trades—These have been supervised and are properly conducted.